

C O N T R A C T

THIS AGREEMENT, made and concluded this day of _____ by and between the **CITY OF READING**, a municipal corporation of the Commonwealth of Pennsylvania, located in the County of Berks, said Commonwealth, party of the first part, and **COLUMBIA EXCAVATING, LLC**, Contractor, party of the second part, pursuant to law and to the provisions and requirements of the ordinance of the City of Reading, Pennsylvania.

WITNESSETH, that the parties to these presents, each in consideration of the agreements on the part of the other herein contained, have agreed, and hereby do agree, the party of the first part for itself, its successors and assign, and the party of the second part for itself, himself, or themselves, its successors, or his or their executors and administrators as follows:

CONTRACTOR'S GENERAL AGREEMENT. The Contractor covenant, promises and agrees to and with the party of the first part, for the consideration hereinafter mentioned and contained, and under the penalty expressed in a bond and hereto attached, to furnish all the material, machinery, equipment, tools, labor and transportation, except as hereinafter otherwise provided, at his own cost, necessary or proper for the purpose of executing the work embraced in this contract in a good, substantial and workmanlike manner, and in strict accordance with the specifications pertaining to this contract a herein contained.

PARTS OF CONTRACT. The Location Map; Notice to Contractors; Bid Instructions; Documents to be Submitted with Bid; Contract Documents; Documents to be Submitted During the Course of the Contract; Wage Rate Determinations; Notice of Preconstruction Requirements and Pre-Construction Conference Questionnaire; Affirmative Action Requirements; General Provisions; Supplementary General Terms and Conditions; Technical Specifications; Supplementary Technical Specifications; and Correspondence and Supportive Documentation shall each form a part of the Contract.

THE CONTRACT SUM. The City shall pay the Contractor for the performance of the Contract, subject to additions and deductions provided therein, in current funds as follows:

ONE HUNDRED SIXTY TWO THOUSAND, NINE HUNDRED EIGHTY SIX DOLLARS AND TWENTY ONE CENTS (\$162,986.21).

Where the quantities originally contemplated are so changed that application of the agreed unit price to the quantity of work performed is shown to create a hardship to the Owner or the Contractor, there shall be an equitable adjustment of the Contract to prevent such hardship.

TIME & MANNER OF DOING WORK. The party of the second part agrees to commence the construction of the work to be done under this contract, immediately upon receiving written notice from the Director of Public Works, or other applicable Director, so to do and to complete the entire work as specified in the technical specifications, it being expressly agreed and understood that the time of beginning, rates of progress and time of completion of the work are essential under this contract. Time is to be considered to be the essence of this contract.

STIPULATED DAMAGES. The Contractor shall begin work within ten (10) days of receipt of written notice from the applicable Director, to do so. If the Contractor fails to complete and finish the work in conformity with the terms and provisions of this Contract within the time hereinbefore specified, he shall pay to the City the sum of Five Hundred Dollars (\$500.00) for each and every day thereafter, including Sundays and holidays, that the finishing of the Contract is delayed, which sum shall be construed as stipulated and liquidated damages and not as a penalty and shall be deducted from the amount due by the terms of the Contract; provided, however, that in case of justifiable delay, the City shall extend the time for completion of said work as provided for in Article G.7, but no extension of time for any reason beyond the time fixed herein for the completion of the work shall be deemed a waiver by the City of the right to abrogate this Contract for abandonment for delay.

LIENS. Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the City a complete release of all liens arising out of this Contract, or receipts in full in lien thereof, and, if required in either case, an affidavit that so far as he has knowledge or information the release and receipts include all the labor and material for which a lien could be filed. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the City all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

IN WITNESS WHEREOF, the said City of Reading has caused this Agreement to be executed by its Mayor, and its corporate seal to be hereunto affixed, duly attested by its City Clerk, and the party of the second part, Columbia Excavating, LLC, the day and year first above written.

ATTEST:

DocuSigned by:

Linda A. Kelleher OMC, City Clerk

73DE031C240D451...

City Clerk

CITY OF READING

DocuSigned by:

Alb Amoros

By:

DC23E561EC4D4EA...

Mayor Eddie Moran
Abraham
Amorós,
Deputy Mayor

COLUMBIA EXCAVATING, LLC

DocuSigned by:

josh knorr

By:

BF187EEFE6A04BB...

APPENDIX

1. Proposal
2. Requests for Proposals and Addenda
3. Submittals (Bonds, Stipulation Against Liens, etc.)

1. Proposal

CERTIFICATE OF ACKNOWLEDGMENT OF RECEIPT OF ADDENDUM

THE CITY OF READING

ADDENDUM NO.1

RFP:

Angelica ADA Improvements
Project

DUE DATE:

June 21, 2021
3:00 P.M. Prevailing Time

NOTICE

This addendum must be signed, attached to, and returned with your proposal to the City of Reading by the time and date indicated ABOVE:

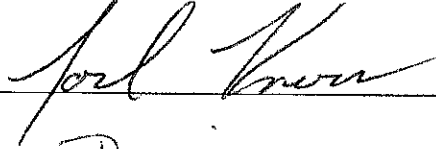
Please be advised this projects due date has been change to June 21, 2021.

I, HEREBY CERTIFY THAT THE CHANGES COVERED BY THIS ADDENDUM HAVE BEEN TAKEN INTO ACCOUNT.

Firm Name (Type or Print)

Columbia Excavating, LLC

Authorized Signature



Title

President

Name (Type or Print)

Joshua J. Knorr

Date

June 21, 2021

CERTIFICATE OF ACKNOWLEDGMENT OF RECEIPT OF ADDENDUM

THE CITY OF READING

ADDENDUM NO.2

RFP: Angelica ADA Improvements
Project

DUE DATE: June 21, 2021
3:00 P.M. Prevailing Time

NOTICE

This addendum must be signed, attached to, and returned with your proposal to the City of Reading by the time and date indicated ABOVE:

Q1. Can you clarify the quantity for the tree protection fence...the bid form has 50 lineal feet and there is considerably more than that shown on the plans?

Q2. The line item #9 has been changed to 100 LF (Linear feet).

9	Tree Protection Fence	LF	100		
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I, HEREBY CERTIFY THAT THE CHANGES COVERED BY THIS ADDENDUM HAVE BEEN TAKEN INTO ACCOUNT.

Firm Name (Type or Print) Columbia Excavating, LLC

Authorized Signature *Josh Knorr*

Title President

Name (Type or Print) Joshua V. Knorr

Date June 21, 2021

CERTIFICATE OF ACKNOWLEDGMENT OF RECEIPT OF ADDENDUM

THE CITY OF READING

ADDENDUM NO.3

RFP:

Angelica ADA Improvements
Project

DUE DATE:

June 21, 2021
3:00 P.M. Prevailing Time

NOTICE

This addendum must be signed, attached to, and returned with your proposal to the City of Reading by the time and date indicated ABOVE:

Please be advised revised design plans and bid form have been posted to Pennbid.

The tree protection fencing shown on the plans is provided to indicate which trees require tree protection fencing. Tree protection fencing shall be placed in the field in a manner which will protect the critical root zone from disturbance caused by earth moving activities. Tree protection on the plans is shown in a large perimeter than needed because of the scale of the drawing. Quantities should not be scaled from the plans.

I, HEREBY CERTIFY THAT THE CHANGES COVERED BY THIS ADDENDUM HAVE BEEN TAKEN INTO ACCOUNT.

Firm Name (Type or Print) Columbia Excavating, LLC

Authorized Signature Joel Thon

Title President

Name (Type or Print) Joshua J. Knorr

Date June 21, 2021

CERTIFICATE OF ACKNOWLEDGMENT OF RECEIPT OF ADDENDUM

THE CITY OF READING

ADDENDUM NO.4

RFP: Angelica ADA Improvements
Project

DUE DATE: June 21, 2021
3:00 P.M. Prevailing Time

NOTICE

This addendum must be signed, attached to, and returned with your proposal to the City of Reading by the time and date indicated ABOVE:

Wage Rates:

"General Decision Number: PA20210006 05/07/2021

Superseded General Decision Number: PA20200006

State: Pennsylvania

Construction Types: Heavy and Highway

Counties: Adams, Berks, Bradford, Carbon, Columbia, Cumberland, Dauphin, Juniata, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Lycoming, Monroe, Montour, Northampton, Northumberland, Perry, Pike, Schuylkill, Snyder, Sullivan, Susquehanna, Tioga, Union, Wayne, Wyoming and York Counties in Pennsylvania.

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS (Excluding Sewer Grouting Projects and Excluding Sewage and Water Treatment Plant Projects)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth

in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/01/2021
1	01/15/2021
2	01/22/2021
3	05/07/2021

BOIL0013-003 03/01/2018

	Rates	Fringes
BOILERMAKER.....	\$ 45.89	33.39

CARP0167-006 05/01/2019

BERKS, CARBON and LANCASTER

	Rates	Fringes
CARPENTER.....	\$ 32.07	15.49

CARP0167-007 05/01/2020

LEHIGH and NORTHAMPTON COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 35.34	26.49

CARP0219-007 06/08/2020

CARBON (Townships: East Penn, Lower Towamensing, Mahoning, Franklin, Towamensing, Penn Forest. Everything south of Route 903 and east to the Kidder Township Line. Boroughs: Hauto, Nesquehoning, Lansford, Summit Hill, Jim Thorpe, Weissport, Bownmanstown, Palmerton, Lehigh, and Parryville) , LEHIGH AND NORTHAMPTON COUNTIES

	Rates	Fringes
MILLWRIGHT.....	\$ 44.00	31.43

CARP0219-008 05/01/2019

BERKS and LANCASTER COUNTIES

Addendum 4 Angelica ADA Improvements Project

	Rates	Fringes
MILLWRIGHT.....	\$ 39.14	19.68

 CARP0441-005 05/01/2020

BERKS, CARBON, LANCASTER, LEHIGH and NORTHAMPTON COUNTIES

	Rates	Fringes
FILEDRIVERMAN.....	\$ 43.70	37.22

 CARP0443-002 05/01/2019

ADAMS, BRADFORD, CARBON (Banks, Lausanne, Lehigh, Packer, Kidder Twps., and part of Penn Forest Township north of Route 903) COLUMBIA, CUMBERLAND, DAUPHIN, JUNIATA, LANCASTER, LEBANON, LUZERNE (lower part of) MONROE, MONTOUR, NORTHUMBERLAND, PERRY, PIKE, SCHUYLKILL, SNYDER, SULLIVAN, SUSQUEHANNA, TIOGA, UNION, WAYNE, WYOMING, YORK (New Cumberland Army Depot and Harrisburg State Airport) COUNTIES

	Rates	Fringes
MILLWRIGHT.....	\$ 35.18	18.82

 * CARP2274-003 05/01/2021

Adams, Bradford, Columbia, Cumberland, Dauphin, Juniata, Lackawanna, Lebanon, Luzerne, Lycoming, Monroe, Montour, Northumberland, Perry, Pike, Schuylkill, Snyder, Sullivan, Susquehanna, Tioga, Union, Wayne, Wyoming and York

	Rates	Fringes
CARPENTER.....	\$ 33.12	17.74
FILEDRIVERMAN.....	\$ 33.12	17.74

 ELEC0126-001 06/01/2020

ADAMS, BERKS, CUMBERLAND, DAUPHIN, JUNIATA, LANCASTER, LEBANON, LEHIGH, NORTHAMPTON, PERRY AND YORK COUNTIES

	Rates	Fringes
Line Construction:		
Cable Splicer.....	\$ 47.42	31.25%+11.75
Groundman.....	\$ 28.45	31.25%+11.75
Lineman.....	\$ 47.42	31.25%+11.75
Truck Driver.....	\$ 30.82	31.25%+11.75
Winch Truck Operator.....	\$ 33.20	31.25%+11.75

 ELEC1319-001 01/01/2021

BRADFORD, CARBON, COLUMBIA, LACKAWANNA, LUZERNE, LYCOMING,
 MONROE, MONTGOMERY, NORTHUMBERLAND, PIKE, SCHUYLKILL, SNYDER,
 SULLIVAN, SUSQUEHANNA, TIOGA, UNION, WAYNE, AND WYOMING COUNTIES

	Rates	Fringes
Line Construction:		
Equipment Operator.....	\$ 59.10	21.28
Groundmen.....	\$ 36.64	12.65
Linemen.....	\$ 59.10	25.28
Truck Driver.....	\$ 38.42	12.78

* ENGI0542-004 05/01/2021		

	Rates	Fringes
Power equipment operators:		
(HIGHWAY CONSTRUCTION AND		
WATER LINES CONSTRUCTION		
(OFF PLANT SITE))		
GROUP 1.....	\$ 39.10	24.70
GROUP 1a.....	\$ 41.35	25.38
GROUP 2.....	\$ 37.93	24.35
GROUP 3.....	\$ 37.23	24.15
GROUP 4.....	\$ 36.77	24.03
GROUP 5.....	\$ 36.26	23.88
GROUP 6.....	\$ 39.33	24.77
GROUP 6a.....	\$ 41.58	25.43

BOOM LENGTH PAY:

On all machines with booms, jibs, masts and leads 100 ft. and over, twenty five cents (\$0.25) per hour additional will be paid for each increment of 25 ft. over 100 ft. On machines with booms (including jibs, masts and leads, etc.), 200 ft. and over, two (2) Operating Engineers shall be required.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 - Pile drivers, all types of cranes, all types of backhoes, draglines, keystones, all types of shovels, derricks, trench shovels, trenching machines, paver (blacktop and concrete), gradalls, all front end loaders, tandem scrapers, pippin types backhoes, boat captains, batch plant with mixer, drill self contained (drill-master type), CMI Autograde, milling machine, vemeer saw, conveyor loader (euclid type) scraper and tournapulls, bulldozers and tractors, concrete pumps, motor patrols, mechanic welders, log skidder, side boom, bobcat type (with attachments), boring machines including directional boring machines, chipper with boom, hydro ax, machines similar to the above including remote control equipment.

GROUP 1a: Crawler backhoes and Crawler gradalls over one cubic yard factory rating; Hydraulic backhoes over one

cubic yard factory rating; All types of cranes 15 ton and over factory rating; Single person operation truck cranes 15 ton and over factory rating; Cherry picker type machinery and equipment 15 ton and over factory rating; Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

GROUP 2 - Spreaders, asphalt plant engineers, rollers (high grade finishing), machine similar to above, including remote control equipment, and forklifts 20ft and over.

GROUP 3 - Welding machine, well points, compressors, pump heaters, farm tractors, form line graders, ditch witch type trencher, road finishing machines, concrete breaking machines, rollers, miscellaneous equipment operator, seaman pulverizing mixer, power broom, seeding spreader, tireman - (for power equipment) conveyors, loaders other than EUC type, conveyors, driller second class, machines similar to the above including remote control equipment, and forklift under 20 ft.

GROUP 4 - Fireman and grease truck

GROUP 5 - Oilers and deck hands

GROUP 6 - All machines with booms (including jibs, masts, leads, etc.) 100 ft. and over.

GROUP 6a: All machines with Booms (including Jibs, Masts, Leads, etc.) 100 feet 15 ton and over factory rating; Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

TOXIC/HAZARDOUS WAST REMOVAL

Add 20 per cent to basic hourly rate for all classifications

* ENGI0542-022 05/01/2021

	Rates	Fringes
Power equipment operators: (HEAVY CONSTRUCTION:)		
GROUP 1.....	\$ 38.44	27.52+A
GROUP 1a.....	\$ 40.69	28.18+A
GROUP 2.....	\$ 38.16	27.43+A
GROUP 2a.....	\$ 40.41	28.10+A
GROUP 3.....	\$ 35.24	26.57+A
GROUP 4.....	\$ 34.10	26.24+A
GROUP 5.....	\$ 33.65	26.11+A
GROUP 6.....	\$ 32.77	25.85+A
HEAVY CONSTRUCTION:		

FOOTNOTE:

A: PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, the employee works the day before and the day after the holiday.

BOOM LENGTH PAY:

On all machines with booms, jibs, masts and leads 100 ft. from ground up, fifty (\$0.50) per hour additional will be paid for each increment of 25 ft. over 100 ft. On cranes with booms (including jibs, masts and leads, etc.) 200 ft. and over, two (2) operators shall be required, no Oilers will be required, with seventy five (\$0.75) in increments of 25 ft.

TOXIC/HAZARDOUS WASTE REMOVAL

Add 20 per cent to basic hourly rate for all classifications

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Machines doing hook work, any machine handling machinery, cable spinning machines, helicopters, machines similar to the above, including remote control equipment, all types of cranes, cableways, and draglines.

GROUP 1a: Machines doing hook work; Machines handling machinery; All types of cranes 15 ton and over factory rating; Cable ways; Draglines 15 ton and over factory rating; High Rail/Burro Crane 15 ton and over factory rating; Rail Loader (Winch Boom Type) 15 ton and over factory rating; Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

GROUP 2: Backhoes, keystones, shovels, derricks, trench shovels, trenching machines, hoist with two towers, pavers 21E and over, overhead cranes, building hoists (double drum) gradalls, mucking machines in tunnels, front end loaders, tandem scrapers, pippin type backhoes, boat captains, batch plant operators concrete drills, self-contained rotary drills, fork lifts, 20ft, lift and over, scrapers, tournapulls, spreaders, bulldozers and tractors, rollers (high grade finishing), mechanic-welder, motor patrols, concrete pumps, grease truck, bob cat type (all attachments), boring machines including directional boring machines, hydro ax, side boom, vermeer saw, chipper with boom, machines similar to the above including remote control equipment

GROUP 2a: Crawler backhoes and crawler gradalls over one cubic yard factory rating; Hydraulic backhoes over one cubic yard factory rating; Equipment 15 ton and over factory rating; Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

GROUP 3: Conveyors, building hoist (single drum), high or low pressure boilers, drill operators, well drillers, asphalt plant engineers, ditch witch type trencher, second class driller, forklift truck under 20ft. lift, stump grinder, tireman (for power equipment), machines similar to above including remote control equipment.

GROUP 4: Welding machines, well points, compressors, pumps, heaters, farm tractors, form line graders, road finishing machines, concrete breaking machines, rollers, seaman pulverizing mixer, power boom, seeding spreader, chipper without boom, machines similar to the above including remote control equipment.

GROUP 5: Fireman.

GROUP 6: Oilers and deck hands (personnel boats).

IRON0404-006 07/01/2020

ADAMS, BERKS, CUMBERLAND, DAUPHIN, JUANITA, LANCASTER, LEBANON, LEHIGH, LYCOMING, MONTGOMERY, NORTHAMPTON, NORTHUMBERLAND, PERRY, SCHUYLKILL, SNYDER, UNION and YORK COUNTIES

	Rates	Fringes
Ironworkers:.....	\$ 33.76	30.13

IRON0404-017 07/01/2020

BRADFORD, CARBON, COLUMBIA, LACKAWANNA, LUZERNE, MONROE, PIKE, SULLIVAN, TIOGA, SUSQUEHANNA, WAYNE and WYOMING COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 33.76	30.13

* LABO0158-001 05/01/2021

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.21	18.09
GROUP 2.....	\$ 29.83	18.09
GROUP 3.....	\$ 26.82	18.09
GROUP 4.....	\$ 27.17	18.09
GROUP 5.....	\$ 27.84	18.09
GROUP 6.....	\$ 27.26	18.09
GROUP 7.....	\$ 27.55	18.09
GROUP 8.....	\$ 28.03	18.09

LABORERS CLASSIFICATIONS

GROUP 1: Flag person

GROUP 2: Hazardous/Toxic/Asbestos Waste Handler, Lead Paint Handler

GROUP 3: Asphalt tamper, concrete pitman, puddlers, highway guide rail right of way and property fence slab reinforcement placers, Laborers, landscaper, seeders, planters, magazine tenders, laser beam men for pipe laying and paving machines,, railroad trackman, signalman, asphalt rakers, lute or screed man, pneumatic and electric tool operators, jackmammers, paving breakers, concrete saws, whacker vibrator, chainsaw, highway concrete block layers, sheet hammer, pipe layers, Walk Behind Rollers, Walk Behind Trencher

GROUP 4: Caisson-open air below 8 feet, cofferdam open air below 8 feet where excavations for circular caissons and cofferdams 8 ft and below level of natural grade adjacent to starting point, form setters (road) wagon drill diamond point drill, gunite nozzle operators, walk behind rollers and concrete rubbers, blaster.

GROUP 5: Form Setter, Reinforced Steel Placer, Bonding Aligning and Securing and Burning and welding in Conjunction wth Rebar, and Concrete Surfacers.

FREE AIR TUNNELS AND ROCK SHAFTS

GROUP 6: Outside labers in conjuction with tunnels and rock shafts

GROUP 7: Chuck tenders, muckers, nippers, miners, inside laborers

GROUP 8: Miners, drillers, blasters, pneumatic shield operators, lining, spotting and timber workmen, rebar steel placer, bonding and securing, welders, and concrete surfacers

PAIN0021-026 05/01/2018

ADAMS, CUMBERLAND, DAUPHIN, LANCASTER, PERRY, AND YORK COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 31.80	14.23
Brush.....	\$ 23.92	14.23
Spray, Sandblast.....	\$ 26.05	14.23

PAIN0057-021 06/01/2020

JUNIATA COUNTY

	Rates	Fringes
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Painters:

Bridge, Towers.....	\$ 35.72	20.72
Commercial Brush & Roller...	\$ 28.80	20.72
Industrial Brush & Roller...	\$ 33.55	20.72
Spray.....	\$ 28.80	20.72

PAIN1021-001 05/01/2012

BERKS, CARBON, LEBANON, LEHIGH, NORTHAMPTON, AND MONROE COUNTIES

	Rates	Fringes
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Painters:

Bridge; Brush, Roller.....	\$ 30.85	14.80
Bridge; Spray.....	\$ 31.85	14.80
Brush and Roller.....	\$ 26.55	14.80
Spray and Sandblast.....	\$ 27.55	14.80

PAIN1021-002 05/01/2009BRADFORD, COLUMBIA, LACKWANNA, LUZERNE, LYCOMING, MONTGOMERY,
NORTHUMBERLAND, PIKE, SCHUYLKILL, SNYDER, SULLIVAN,
SUSQUEHANNA, TIOGA, UNION, WAYNE, WYOMING COUNTIES

	Rates	Fringes
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Painters:

Bridge; Brush, Roller.....	\$ 25.60	12.05
Bridge; Spray.....	\$ 26.60	12.05
Brush and roller.....	\$ 22.75	12.05
Spray, Sandblast.....	\$ 23.75	12.05

PLAS0592-004 06/01/2020

MONROE COUNTY; (EXCEPT TOBYHANNA DEPOT)

	Rates	Fringes
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CEMENT MASON/CONCRETE FINISHER...	\$ 34.78	13.30
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PLAS0592-005 06/01/2020

COLUMBIA COUNTY

	Rates	Fringes
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CEMENT MASON/CONCRETE FINISHER...	\$ 34.78	13.30
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PLAS0592-017 05/01/2020

	Rates	Fringes
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CEMENT MASON/CONCRETE FINISHER
 BERKS (Northeastern part
 lying North of a line
 starting from the Southern

boundary line of Lehigh
County continuing through
Huffs Church,
Fredericksville, Dryville,
Lyon Station, Kutztown,
Krumsville, and Stoney run
in Berks County to the
Lehigh County line),
CARBON, LEHIGH,
NORTHAMPTON (Northwest
part including the towns
of Walnutport, Bath, and
Northampton) COUNTIES.....\$ 31.60 23.18

PLAS0592-018 05/01/2020

	Rates	Fringes
Cement Mason/Concrete Finisher Adams, Lancaster and York Counties.....\$ 30.80		21.45
PLASTERER Adams, Berks (Portions of), Lancaster, and Lebanon Counties.....\$ 27.48		20.75

PLAS9592-002 05/01/2014

MONROE COUNTY (TOBYHANNA ARMY DEPOT)

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...\$ 31.23		10.00

TEAM0229-003 05/01/2018

	Rates	Fringes
TRUCK DRIVER (ADAMS, BERKS, CARBON, COLUMBIA, CUMBERLAND, DAUPHIN, JUNIATA, LACKAWANA, LANCASTER, LEBANON, LEHIGH, LUZERNE, LYCOMING, MONROE, MONTGOMERY, NORTHAMPTON, NORTHUMBERLAND, PERRY, PIKE, SCHUYLKILL, SNYDER, SULLIVAN, SUSQUEHANNA, UNION, WAYNE, WYOMING, AND YORK COUNTIES)		
GROUP 1.....\$ 35.32		0.00
GROUP 2.....\$ 35.39		0.00
GROUP 3.....\$ 35.88		0.00
Truck drivers: (BRADFORD AND TIOGA COUNTIES)		
GROUP 1.....\$ 22.21		13.11
GROUP 2.....\$ 22.28		13.11
GROUP 3.....\$ 22.77		13.11

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Flat Bed Truck (Single-Axle), Dump Trucks (Under 10 Yds Single Axle), Stake Body Truck (Single Axle), Dumpster (Single Axle)

GROUP 2: Dump Truck (Over 10 Yds), Asphalt Distributors, Transit Mix (Under 5 Yds), Transit Mix (Over 5 Yds.), Flat or Stake Body (Tandem), Fuel Truck A-Frame/Winch Trucks, Dry Batch Truck, Truck Mounted Sweeper and Vac Trucks, Buses, Dumpster (Tandem)

GROUP 3: Euclid-Type, Off Highway Equipment-Back or Double Bottom Dump Trucks (Over 20 Tons), Straddle Trucks, Pusher, Articulate Dumped Trucks, Low Boy Trailers, Semi Trailers

Water Tank, Sprinkler Trucks, Winch Trucks and Fuel Trucks shall be governed by the appropriate classification as listed above.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage

determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION"

I, HEREBY CERTIFY THAT THE CHANGES COVERED BY THIS ADDENDUM HAVE BEEN TAKEN INTO ACCOUNT.

Firm Name (Type or Print) Columbia Excavating, LLC

Authorized Signature 

Title President

Name (Type or Print) Joshua J. Knorr

Date June 21, 2021

ARTICLE 1 – BID RECIPIENT

- 1.01 This Bid is submitted to:

City of Reading
815 Washington Street, Reading PA 19601

- 1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

- 2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, unless award is delayed by a required approval from a government agency, the sale of bonds, or the award of a grant, in which event, the Bids shall remain open for a period of one hundred twenty (120) calendar days from the date of bid opening. The Owner will either award the contract within the applicable time period or reject all Bids, returning the Bid Security to the Bidders. A thirty (30) day time extension of the date for the award may be made by the mutual written consent of the Owner and the lowest responsible, responsive Bidder.
- 2.02 Bidder will sign and submit the Agreement along with the Bonds and other documents requires by the Bidding Requirement within the time period indicated in the Notice of Award.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

- 3.01 In submitting this Bid, Bidder represents that:

- A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>
<u>1</u>	<u>5/21/21</u>
<u>2</u>	<u>6/7/21</u>
<u>3</u>	<u>6/14/21</u>
<u>4</u>	<u>6/14/21</u>

- B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if

any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner, and
- E. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.E:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

- 5.01 Bidder will complete the Work in accordance with the Contract Documents for the following Lump Sum and Unit Price(s):

SCHEDULE OF PRICES

	<u>Description</u>	<u>Units</u>	<u>Estimated Quantity</u>	<u>Bid Unit Price</u>	<u>Bid Price</u>
1	Bonds and Insurance	LS	1	11,893.02	11,893.02
2	Mobilization and Demobilization	LS	1	12,937.77	12,937.77
3	Testing Allowance	LS	1	\$10,000.00	\$10,000.00
4	Erosion and Sediment Control, including all silt sock and concrete washouts.	LS	1	9312.95	9312.95
8	Erosion Control Blankets	SF	390	1.56	608.40
9	Tree Protection Fence	LF	100	7.89	789.00
10	Removal of Existing Trail Path	SY	899	15.02	13,502.98
11	Removal of Concrete Pads, including benches and tables to be returned to owner.	EA	6	677.81	4,066.86
12	Site Grading	SY	4333	4.68	20,278.44
13	Asphalt Trail	SY	930	41.72	38,799.60
14	ADA Accessible Bench, including concrete pad.	EA	5	2,510.55	12,552.75
15	ADA Accessible Table, including concrete pad.	EA	4	3,311.11	13,244.44
16	Allowance for Miscellaneous work ordered by the Owner and/or Engineer	LS	1	\$15,000.00	\$15,000.00

Total of All Lump Sum and Unit Price Items 1 through 16 equals the Total Bid Price

\$ 162,986.21

One Hundred Sixty-Two Thousand, Nine Hundred Eighty-Six
 Dollars & Twenty-one cents.
 Total Amount of Bid in written words

The Contract will be awarded to the responsive Bidder with the lowest Total Bid Price of all Lump Sum and Unit Price bid items.

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

The use of the word "complete" or "in place" in the Schedule of Prices shall be understood to mean the item of Work includes all labor, materials, tools, equipment, excavation (regardless of material encountered), backfill, restoration, reseeding and incidental work necessary to complete the item.

All specified cash allowances are included in the price(s) set forth above, and have been computed in accordance with Paragraph 13.02 of the General Conditions.

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security; if Bid Bond use only the two page form included with the Bidding Documents;
 - B. Noncollusion Affidavit;
 - C. Required Bidder Qualification Statement with supporting data; and
 - D. Public Works Verification Form – Act 127

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

Certification:

I, Joshua V. Knorr, certify that I am the
President of the Corporation named as
Contractor herein; that Joshua V. Knorr who signed this Agreement on
behalf of the Contractor, was the President of said Corporation;
that said Agreement was duly signed for and in behalf of said Corporation by authority of its
governing body, and is within the scope of its Corporate powers.


Signature

President
Title

Corporate Seal (if applicable)

ARTICLE 9 – BID SUBMITTALBIDDER: *[Indicate correct name of bidding entity]*Columbia Excavating, LLC

By:

*[Signature]**[Printed name]*Joshua J. Knorr, President
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

*[Signature]**[Printed name]*

Title:

Submittal Date:

Address for giving notices:

7398 Columbia Blvd.
Berwick, PA 18603

Telephone Number:

Fax Number:

Contact Name and e-mail address:

Bidder's License No.:

(where applicable)

++ END OF BID FORM ++

THE FOLLOWING INSTRUCTIONS FOR CONTRACTORS REGARDING AFFIRMATIVE ACTION ARE PROVIDED FOR INFORMATION PURPOSES. THE SUCCESSFUL BIDDER ASSUMES THE OBLIGATION TO TAKE WHATEVER AFFIRMATIVE ACTIONS ARE NECESSARY TO ASSURE EQUAL EMPLOYMENT OPPORTUNITY IN ALL ASPECTS OF EMPLOYMENT, IRRESPECTIVE OF RACE, COLOR, CREED, OR NATIONAL ORIGIN.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT
OPPORTUNITY (EXECUTIVE ORDER 11246, AS AMENDED)**

- (1) The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
- (2) The goals are timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables	Goals for Minority Participation in Each Trade	Goals for Female Participation for Each Trade
Until Further Notice	2.5% for all trades	6.9% for All Trades

These goals are applicable to all the Contractor's construction work (whether or not it is federal or federally-assisted) performed in the covered area.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

- (3) **THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE DIRECTOR OF THE OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS WITHIN 10 WORKING DAYS OF AWARD OF ANY CONSTRUCTION SUBCONTRACT IN EXCESS OF \$10,000 AT ANY TIER FOR CONSTRUCTION WORK UNDER THE CONTRACT RESULTING FROM THIS SOLICITATION. THE NOTIFICATION SHALL LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE SUBCONTRACTOR; EMPLOYER IDENTIFICATION NUMBER; ESTIMATED DOLLAR AMOUNT OF THE SUBCONTRACT; ESTIMATED STARTING AND COMPLETION DATES OF THE SUBCONTRACT; AND, THE GEOGRAPHICAL AREA IN WHICH THE CONTRACT IS TO BE PERFORMED.**

**OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS
THE CURTIS CENTER SUITE 750 WEST
170 SOUTH INDEPENDENCE MALL WEST
PHILADELPHIA, PA 19106-3309
PHONE (215) 861-5764**

As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the City of Reading, Pennsylvania.

State of Pennsylvania
County of Columbia) ss.

I, Joshua J. Knorr, Notary Public, being duly sworn, deposes and says that he
is President of Columbia Excavating, LLC
(Name of Organization)

and that the answers to the foregoing questions and all statements therein contained are true and correct.

Subscribed and sworn to before me this 21st day of June, 2021.


NOTARY PUBLIC

My Commission Expires:

Commonwealth of Pennsylvania - Notary Seal
Karen S. Boyer, Notary Public
Columbia County
My commission expires March 10, 2025
Commission number 1015609
Member, Pennsylvania Association of Notaries

DOCUMENTS TO BE SUBMITTED WITH BID

PROPOSAL

Proposal of: *Columbia Excavating, LLC*

Name: *Joshua J. Knorr*

Address: *7398 Columbia Blvd.
Berwick, PA 18603*

TO: Mayor Moran,
City of Reading
815 Washington Street
Reading, PA 19601

Dear Mayor Moran:

In conformity with City Plans and specifications, all as prepared by the Public Works Department and after an examination of the site of the work, and the Contract Documents, including the instructions to Bidders, Form of Proposal, Bid Bond and Conditions, the undersigned submits this proposal, and encloses herewith as proposal guaranty, a Certified or Treasurer's Check, or Bid Bond, in an amount not less than ten percent (10%) of the bid herein submitted, which it is understood will be forfeited if this proposal is accepted by the City of Reading, and the undersigned fails to furnish approved bonds and execute the contract within the time stipulated; otherwise, the guarantee will be returned.

The undersigned declares that no Member of Council, Director of Department, Division Manager, deputy thereof or clerk therein, or other officer of the City of Reading, is directly or indirectly interested as principal, surety or otherwise in this proposal or has any supervision or overall responsibility for the implementation in administration of the contract.

It is certified that the undersigned is the only person(s) interested in this proposal as principal and that the proposal is made without collusion with any person, firm, or corporation.

It is hereby agreed to execute the contract and furnish surety company bonds, on the forms enclosed in the Contract Documents, in the amount of one hundred percent (100%) of the contract price within ten (10) days of mailing of the contract documents from the City to the Principal, and to begin work within ten (10) days after receipt of Notice to Proceed from the City of Reading.

It is proposed to furnish and deliver all materials, tools, equipment, power, tests and transportation, perform all labor, superintendence, and all means of construction, and do all incidental work, and to execute, construct and finish in an expeditious and workman-like manner, in accordance with the plans and specifications, to the satisfaction and acceptance of the Department of Public Works of the City of Reading and its Engineer for the total base bid as herein bid:

One Hundred Sixty-Two Thousand, Nine Hundred Eighty Six Dollars (written)
\$ *162,986.21* (figures). *and twenty-one cents*

IN WITNESS WHEREOF, this proposal has been executed this 21st day June A.D. 2021, by the setting hereunto of his or its hand and seal.

(INDIVIDUAL; PRINCIPAL)

_____(Seal)
(Signature of Individual)


Witness:

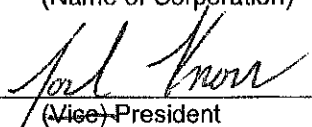
Trading and Doing Business as:

(PARTNERSHIP PRINCIPAL)

Witness:	_____ (Seal) (Name of Partnership)
_____	By: _____ (Seal) (Partner)
Witness:	_____
_____	By: _____ (Seal) (Partner)
Witness:	_____
_____	By: _____ (Seal) (Partner)
Witness:	_____
_____	By: _____ (Seal) (Partner)

(CORPORATION PRINCIPAL)

Attest:

(Assistant Secretary)

Columbia Excavating, LLC
(Name of Corporation)
By: 
(Vice) President

(CORPORATE SEAL)

or (if appropriate)

(Name of Corporation)
By: _____
Authorized Representative

NON-COLLUSION AFFIDAVIT

INSTRUCTIONS FOR NON-COLLUSION AFFIDAVIT

This Non-Collusion Affidavit is material to any contract pursuant to this bid. According to the Pennsylvania Antibid-Rigging Act, 73 P.S. 1611 et seq., governmental agencies may require Non-Collusion Affidavits to be submitted together with bids.

This Non-Collusion affidavit must be executed by the member, officer, or employee of the bidder who is authorized to legally bind the bidder.

Bid rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the submission of bids are unlawful and may be subject to criminal prosecution. The person who signs the Affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the bidder with responsibilities for the preparation, approval, or submission of the bid.

In the case of a bid submitted by a joint venture, each party to the venture must be identified in the bid documents, and an Affidavit must be submitted separately on behalf of each party.

The term "complementary bid" as used in the Affidavit has the meaning commonly associated with that term in the bidding process, and includes the knowing submission of bids higher than the bid of another firm, any intentionally high or noncompetitive bid, and any form of bid submitted for the purpose of giving a false appearance of competition.

Failure to file an Affidavit in compliance with these instructions will result in disqualification of the bid.

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of Pennsylvania

County of Columbia

Joshua J. Knorr, being first duly sworn, deposes and says that:

He/She is President (Owner, Partner, Officer, Representative or Agent) of Columbia Excavating, LLC, the Bidder that has submitted the attached Bid or Bids;

He/She is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

Such Bid is genuine and is not a collusive or sham Bid;

Neither the said Bidder nor any of its officers; partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication of conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Reading or any person interested in the proposed Contract;

The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant; and,

Neither the said Bidder nor any of its officers, partners, owners, agents or parties in interest, have any interest, present or prospective, that can be reasonably construed to result in a conflict of interest between them and the City of Reading, which the Bidder will be required to perform.

I state that Columbia Excavating, LLC understands
(Name of Firm)

and acknowledges that the above representations are material and important, and will be relied on by the City of Reading in awarding the contract(s) for which this bid is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from the City of Reading of the true facts relating to the submission of bids for this contract.

Joshua J. Knorr
(Name and Company Position) President

SWORN TO AND SUBSCRIBED
BEFORE ME THIS 21st
DAY OF June, 2021

Karen S. Boyer My Commission Expires
Notary Public

Commonwealth of Pennsylvania - Notary Seal
Karen S. Boyer, Notary Public
Columbia County
My commission expires March 10, 2025
Commission number 1015609
Member, Pennsylvania Association of Notaries

**PROVIDER'S CERTIFICATION OF NON-INDEBTEDNESS
TO THE CITY OF READING**

Provider hereby certifies and represents that Provider and Provider's parent company(ies) and subsidiary(ies) are not currently indebted to the City of Reading (the "City"), and will not at any time during the term of this Contract (including any extensions or renewals thereof) be indebted to the City, for or on account of any delinquent taxes, liens, judgments, fees or other debts for which no written agreement or payment plan satisfactory to the City has been established. In addition to any other rights or remedies available to the City at law or in equity, Provider acknowledges that any breach or failure to conform to this certification may, at the option of the City, result in the withholding of payments otherwise due to Provider and, if such breach or failure is not resolved to the City's satisfaction within a reasonable timeframe specified by the City in writing, may result in the offset of any such indebtedness against said payments and/or the termination of this Contract for default (in which case Provider shall be liable for all excess costs and other damages resulting from the termination).

Columbia Excavating LLC
NAME OF PROVIDER

By:

Paul Kwon
AUTHORIZED SIGNATORY

Title:

President
PRESIDENT OR VICE PRESIDENT

Attest:

Aileen S. Boyer

RESOLUTION NO. 192-92

WHEREAS, reportedly, twenty-five cement manufacturing facilities in the United States are currently burning well over two billion pounds a year of hazardous waste as a source of fuel and additional profit in the cement manufacturing process; and

WHEREAS, approximately twenty cement manufacturing facilities are seeking permission to start this practice; and

WHEREAS, sufficient data and evidence as to the safety of cement products made from hazardous waste has not been proven; and

WHEREAS, it is in the best interest of the citizens of the City of Reading in regard to their health and quality of life that cement derived from hazardous waste be banned from any City projects.

NOW, THEREFORE, the Council of the City of Reading resolves that the City of Reading will not purchase cement from any facility that burns hazardous waste as fuel in its manufacturing process, nor allow the use of concrete made from this type of cement. This policy shall be reflected in city bid specifications.

PASSED COUNCIL April 1, 1993

WARREN H. HAGGERTY, JR.
Mayor

ATTEST:

RUTH M. THOMPSON
City Clerk

STATEMENT REGARDING MANUFACTURE OF CEMENT

The following statement is to be signed by an authorized officer of the company.

The undersigned contractor hereby certifies in accordance with City of Reading Resolution #192-92, that any cement used in performance of this contract shall not have been manufactured by a process using hazardous materials, as defined by the Environmental Protection Agency, in the manufacture and makeup thereof.

CONTRACTOR

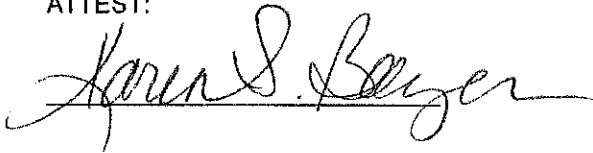
By:



Title:

President

ATTEST:



STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

1. Name of Bidder: Columbia Excavating, LLC
2. Permanent main office address: 7398 Columbia Blvd, Berwick, PA 18603
3. When organized: 4/2005
4. If a corporation, where incorporated: Pennsylvania
5. How many years have you been engaged in the contracting business under your present firm or trade name: 16 years
6. Contracts on hand: (Schedule these on an attached sheet, showing amount of each contract and the appropriate anticipated dates of completion.) See attached
7. Have you ever failed to complete any work awarded to you? If so, where and why?
No
8. Have you ever defaulted on a contract? No. If so, where and why?

9. List the more important projects recently completed by your company on an attached sheet, stating the approximate cost of each, and the month and year completed. See attached
10. List your major equipment available for this contract.
See attached

11. Describe experience in construction work similar in importance to this project on an attached sheet.
See attached

Page 2
Statement of Bidder's Qualifications

12. Background and experience of the principal members of your organization, including the officers.

See attached

13. Credit available: \$ _____

14. Give Bank reference: First Keystone Community Bank

15. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the City? Upon award of job

16. (A) Have you ever been a party to or otherwise involved in any action or legal proceeding involving matters related to race, color, nationality or religion? No If so, give full details.

(B) Have you ever been accused of discrimination based upon race, color, nationality or religion in any action or legal proceeding including any proceeding related to any Federal Agency? No If so, give full details _____

17. All prospective bidders are required to present proof of an acceptable disposal method approved by the Pennsylvania Department of Environmental Protection. The proof may consist of a copy of a State Solid Waste Disposal Permit issued to the prospective bidder by the Pennsylvania Department of Environmental Protection, or a letter of approval from the Pennsylvania Department of Environmental Protection for the use of a proposed or existing disposal facility which has a permit or is under review for a permit. Same to be in accordance with Section 7 (a) application and permits, Pennsylvania Solid Waste Management - "Act 241."

Page 3
Statement of Bidder's Qualifications

18. The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information requested by the "City of Reading" in verification of the recitals comprising this Statement of Bidder's Qualifications.
19. Name, address, phone number, and contact person at surety company who will provide bonding for this contract:

Anderson & Catania, 707 Philadelphia Pike,
Wilmington, DE 19809, Gina Semonelle, 302-762-7599

20. Name, address, phone number, and contact person at insurance company who will provide insurance coverage for this contract:

Zimmer Insurance Agency, 460 Central Road, Bloomsburg, PA 17815
Reade Taylor - 570-784-4988

21. The undersigned hereby authorizes any person, firm or corporation to furnish any information requested by the City of Reading in verification of the recitals comprising this Statement of Bidder's Qualifications.

DATED at 12:00 pm this 21st day of June, 20 21.

Columbia Excavating LLC
(NAME OF BIDDER)

BY: [Signature]

TITLE: President

Columbia Excavating, LLC
7398 Columbia Boulevard
Berwick, PA 18603
(570) 759-2222

STATEMENT OF BIDDER'S QUALIFICATIONS

6. Redding Park Improvements

Owner: Wormleysburg Borough
Architect: RETEW Associates, Inc.
Contract Amt: 82,781.40
% Complete: 0%
Ant Completion: July 2021

Friendship Park Playground Site Improvements

Owner: Upper Allen Township
Architect: CS Davidson, Inc.
Contract Amt: 231,000.00
% Complete: 80%
Ant Completion: April 2021

Sekisui – North & South Parking Areas & Curbing

Owner: Sekisui / Kydex
Architect: Marguillies Hoelzli
Contract Amt: 181,045.20
% Complete: 85%
Ant Completion: April 2021

9. 2020 OCD McCarragher & Grove Street Park Improvement Project

Owner: City of Wilkes-Barre
Architect: Penn Eastern Engineers
Contract Amt: 51,390.00
% Complete: 100%
Completion: April 2021

The Center Street Stream Restoration

Owner: Ralpho Township
Architect: Larson Design Group
Contract Amt: 30,362.00
% Complete: 100%
Completion: November 2020

Tributary to Grafius Run Bank Stabilization Project

Owner: Loyalsock Township
Architect: PA DEP
Contract Amt: 28,740.00
% Complete: 100%
Completion: October 2020

George R. Hock Memorial Park Improvements

Owner: Exeter Township
Architect: Tompkins Engineering
Contract Amt: 87,975.25
% Complete: 100%
Completion: August 2020

Church Street Park 2019 Phase II Renovation Project

Owner: Municipality of Kingston
Architect: Borton-Lawson
Contract Amt: 170,378.75
% Complete: 100%
Completion: July 2020

Tilbury Road Slope Stabilization Project

Owner: Plymouth Township
Architect: Pennoni
Contract Amt: 13,322.00
% of Work: 100%
Completion: June 2020

Elm Street Station Park

Owner: Penbrook Borough
Architect: H. Edward Black & Associates
Contract Amt: 196,080.00
% of Work: 100%
Completion: November 2019

Playground Install

Owner: Dallas Elementary School
Contract Amt: 35,863.00
% of Work: 100%
Completion: August 2019

2018 OCD Weissman & Spruce Street Park Improvements

Owner: City of Wilkes-Barre
Architect: Penn Eastern Engineers
% of Work: 100%
Contract Amt: 193,246.00
Completion: July 2019

Creek Road Retaining Wall Reconstruction

Owner: Moore Township
Architect: Keystone Consulting Engineers
Contract Amt: 63,100.00
% of Work: 100%
Completion: May 2019

Sewer

Owner: Shepton Legion
Contract Amt: 8,250.00
% of Work: 100%
Completion: July 2019

Relocation of Playground

Greater Nanticoke School
Contract Amt: 15,121.00
% of Work: 100%
Completion: November 2018

Altmiller Park Improvement Project

Owner: City of Hazleton
Architect: Barry Isett & Associates
Contract Amt: 288,342.00
% of Work: 100%
Completion: October 2018

Prince / Park Terrace Stormwater BMP Project

Owner: Paxtang Borough
Architect: Rettew
Contract Amt: 76,064.00
% of Work: 100%
Completion: October 2018

Demo of Fire Damaged Home

Owner: Bridget Billings
Contract Amt: 10,700.00
% of Work: 100%
Completion: September 2018

Water Runoff Repair

Owner: America Choice Auto
Contract Amt: 7,570.00
% of Work: 100%
Completion: August 2018

Playground Installation

Owner: Newport Township
Contract Amt: 4,500.00
% of Work: 100%
Completion: May 2018

Playground Uninstall

Owner: Dallas Elementary
Contract Amt: 9,878.00
% of Work: 100%
Completion: March 2018

Clearing for Pole Barn

Owner: Jason Troxell
Contract Amt: 6,250.00
% of Work: 100%
Completion: December 2017

Pond Repairs

Owner: Nate Snively
Contract Amt: 7,585.00
% of Work: 100%
Completion: November 2017

1149 Chestnut Street Demo

Owner: Berwick Borough
Architect: Peter's Consultants
Contract Amt: 11,050.00
% of Work: 100%
Completion: November 2017

1001 Pine Street Demo

Owner: Berwick Borough
Architect: Peter's Consultants
Contract Amt: 13,800.00
% of Work: 100%
Completion: November 2017

Little Roaring Creek

Owner: CHD Enterprises
Contract Amt: 16,007.00
% of Work: 100%
Completion: November 2017

PA State Police District Enforcement Office

Owner: Martin P. & Beverly Mariano
Contract Amt: 785,399.97
% of Work: 100%
Completion: October 2017

Louis A. Ramos Elementary School

Owner: Allentown School District
Architect: Barry Isett & Associates
Contract Amt: 93,274.00
% of Work: 100%
Completion: October 2017

Front Street Demo

Owner: Columbia County Housing
Contract Amt: 12,400.00
% of Work: 100%
Completion: July 2017

LRBSA Streambank Stabilization

Owner: Lackawanna River Basin Sewer Authority
Architect: Lackawanna River Basin Sewer Authority
Contract Amt: 27,000.00
% of Work: 100%
Completion: June 2017

Parking Lot Repair

Owner: MTR Services
Contract Amt: 6,688.00
% of Work: 100%
Completion: June 2017

615 Eckard Avenue Demo of House w/ Hedges and Trees

Owner: Columbia County Housing
Contract Amt: 8,250.00
% of Work: 100%
Completion: February 2017

Emergency Flood Repairs

Owner: Ralston Township
Contract Amt: 49,825.00
% of Work: 100%
Completion: November 2016

Bloomsburg Flood Protection Project

Owner: County of Columbia Board of Commissioners
Contract Amt: 1,000,000.00
% of Work: 100%
Completion: October 2016

Dohl Road T-726

Owner: North Centre Township
Contract Amt: 10,770.00
% of Work: 100%
Completion: October 2016

Jodi Piatt Site Prep

Owner: TS Construction
Contract Amt: 28,700.00
% of Work: 100%
Completion: September 2016

Trucking @ Eagle Rock

Owner: Joe Kulaga Trucking
Contract Amt: 9,460.00
% of Work: 100%
Completion: June 2016

Demo @ North Berwick Building

Owner: Berwick Area School District
Contract Amt: 8,050.00
% of Work: 100%
Completion: June 2016

Walnutport Boat Launch Facility

Owner: Wildlands Conservancy
Architect: Hanover Engineering Associates
Contract Amt: 112,160.00
% of Work: 100%
Completion: May 2016

Johnson & Koval Stream Stabilization Project

Owner: Luzerne Conservation District
Contract Amt: 128,292.00
% of Work: 100%
Completion: March 2016

323 LaSalle Street Demo

Owner: Columbia County Housing
Contract Amt: 12,850.00
% of Work: 100%
Completion: February 2016

New Castle Rail Realty Access Road Project

Owner: New Castle Rail Realty
Contract Amt: 37,530.00
% of Work: 100%
Completion: January 2016

Ralston Playground

Owner: McIntyre Township
Contract Amt: 33,600.00
% of Work: 100%
Completion: November 2015

Treichlers Boat Launch Facility

Owner: Wildland Conservancy
Architect: Hanover Engineering Associates
Contract Amt: 124,938.00
% of Work: 100%
Completion: November 2015

Ariel Creek

Owner: Lake Wallenpaupack Watershed
Contract Amt: 44,900.00
% of Work: 100%
Completion: November 2015

Flood Mitigation Project Repairs

Owner: McIntyre Township
Contract Amt: 52,397.61
% of Work: 100%
Completion: August 2015

Bloomsburg University Mailroom Relocation Site Work

Owner: Bloomsburg University
Contract Amt: 54,784.00
% of Work: 100%
Completion: June 2015

Bethlehem – Main Street Streetscapes

Owner: Bethlehem Township
Contract Amt: 93,000.00
% of Work: 100%
Completion: May 2015

Kiwanis Building Demo

Owner: Berwick Area School District
Contract Amt: 5,300.00
% of Work: 100%
Completion: May 2015

Berwick Area High School Baseball Field

Owner: Berwick Area School District
Contract Amt: 364,450.00
% of Work: 100%
Completion: March 2015

Streambank Restoration

Owner: John Marks
Contract Amt: 29,800.00
% of Work: 100%
Completion: January 2015

Demo and Restoration of 3 Properties

Owner: Borough of Catawissa
Contract Amt: 33,000.00
% of Work: 100%
Completion: January 2015

Building Demolition and Removal

Owner: Bradford County Airport Authority
Contract Amt: 48,000.00
% of Work: 100%
Completion: November 2014

Pond Repair

Owner: Thomas Gulick
Contract Amt: 50,000.00
% of Work: 100%
Completion: October 2014

Streambank Restoration and Other Minor Repairs

Owner: Jerry Davis
Contract Amt: 38,742.63
% of Work: 100%
Completion: October 2014

Taylor Drive Repair

Owner: North Centre Township
Contract Amt: 7,209.00
% of Work: 100%
Completion: October 2014

Demolition of 3 Structures

Owner: Nescopeck Township
Contract Amt: 23,800.00
% of Work: 100%
Completion: September 2014

11. 2020 OCD McCarragher & Grove Street Park Improvement Project

Owner: City of Wilkes-Barre
Architect: Penn Eastern Engineers
Contract Amt: 51,390.00
% Complete: 100%
Completion: April 2021

George R. Hock Memorial Park Improvements

Owner: Exeter Township
Architect: Tompkins Engineering
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Church Street Park 2019 Phase II Renovation Project

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Completion: July 2020

2018 OCD Weissman & Spruce Street Park Improvements

Owner: City of Wilkes-Barre
Architect: Penn Eastern Engineers
% of Work: 100%
Contract Amt: 193,246.00
Completion: July 2019

- 12. Josh Knorr has 18 years of experience in the construction field. Josh has completed several large projects including site work for The Bloomsburg Flood Protection Project and site work for (3) Wal-mart Stores totaling \$18,000,000.00**



Columbia Excavating, LLC



City of Reading

815 Washington Street

Reading, PA 19601

Cindy Castner,

All solid waste materials being removed from the Angelica Creek Park – ADA Improvement project located at 575 Saint Bernardine Street Reading PA, 19607 will be taken to either South Reading Asphalt located at 148 Angstadt Lane Birdsboro, PA 19508, or to Silver Hill Quarry & Asphalt located at 470 Yellow Hill Road, R.D. #1 Narvon, PA 17555. Both Asphalt locations are accepting asphalt recycled material, and are both owned by the H&K Group. A Department of Environmental Protection permit will be provided upon being awarded the Angelica Creek Park- ADA Improvement project.

Sincerely,

Josh Knorr

President

10.

ITEM	PURCHASE DATE	CONDITION	ACQUIRED VALUE
2002 Mack RD690S Dump Truck	5 / 2017	USED	
1998 310E John Deere Backhoe	10/2017	USED	
1997 CAT D5C Dozer	4 / 2015	USED	
2014 TB290 Takeuchi Excavator	11 / 2018	USED	
SVL75-2HWC Kubota Skidsteer	12 / 2017	USED	
2007 821E Case Wheel Loader	10 / 2019	USED	
John Deere 650JLT Dozer	5/2020	USED	
2011 Doosan DX140LCR Hyd. Excavator	11 / 2019	USED	
DD24 Tandem Vibratory Roller	6 / 2018	USED	
2007 Mack CTP713 Tri-Axle	6 / 2019	USED	
2000 Peterbilt 379 Tractor	1/2020	USED	
2019 289D CAT Compact Track Loader	10/2020	USED	
1989 Mack Dump Truck	9/2020	USED	
2021 Mack Dump Truck	3/2021	NEW	
1993 Ford Tractor	3/20/21	USED	

EQUAL EMPLOYMENT OPPORTUNITY AND SECTION 3 QUESTIONNAIRE

(Please complete the following information and answer all questions; use an attached sheet as necessary.)

1. (a) Contractor: How many persons from the City of Reading 0, low income City residents _____, and minorities: _____ Black, _____ Hispanic, _____ White, _____ Asian/Pacific Islander, _____ Other, are on your present basic payroll?

(b) Subcontractor: How many persons from the City of Reading 0, low income City residents _____, and minority groups: _____ Black, _____ Hispanic, _____ White, _____ Asian/Pacific Islander, _____ Other, are on your present basic payroll?

2. How many City of Reading residents 0, low income City residents _____, and minorities: _____ Black, _____ Hispanic, _____ White, _____ Asian/Pacific Islander, _____ Other, are presently in training programs run by your company, your subcontractors, and associations to which you or your subcontractors may belong or with unions with which you and your subcontractors have collective bargaining agreements?

NA - Only using current employees.

3. Does your firm, subcontractors, associations to which you or they belong or unions with which you or your subcontractors have collective bargaining agreements a definite plan for creating career situations, training and employment for residents of the City of Reading, low income citizens, and minorities? _____. If so, please include a copy of the plan with your formal bid and specify the number of individuals (from the groups referred to previously), to be placed in apprenticeship or other training situations. When is the program scheduled to begin? _____ What portion of the program is already in operation? NA -

4. What plans does your firm have to utilize business concerns located in, or owned in substantial part by persons residing in the City?

None - using our current employees only


CERTIFICATION OF NON-SEGREGATED FACILITIES

The Bidder certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The Bidder certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The Bidder agrees that a breach of this certification will be a violation of the Equal Opportunity clause in any contract resulting from acceptance of this bid. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion or national origin, because of habit, local custom or otherwise. The Bidder agrees that (except where he has obtained identical certification from proposed subcontractors for specific time periods) he will obtain identical certification from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certifications in his files.

Note: The penalty for making false statement in offers is prescribed in 18 U.S.C. 1001.

DATE: 6/21/21

BY: Columbia Excavating LLC
(NAME OF BIDDER) 01


(TITLE) President

OFFICIAL ADDRESS:

7398 Columbia Blvd.
Berwick, PA 18603

CONTRACTOR'S STATEMENT FOR PUBLIC DISCLOSURE *

1.
 - a/ Name of Contractor: Columbia Excavating, LLC
 - b/ Address and Zip Code of Contractor: 7398 Columbia Blvd., Berwick, PA 18603
2. If the Contractor is not an individual doing business under his own name, the Contractor has the status indicated below and is organized or operating under the laws of PA:

X a corporation

_____ a partnership known as:

_____ a business association or a joint venture known as:

_____ a Federal, State or Local government or instrumentality thereof

_____ other (explain)
3. If the Contractor is not an individual or a government agency or instrumentality, give date of organization: 4/2005
4. Names, addresses, title of position (if any), and nature and extent of the interest of the officers and principal members, shareholders, investors other than a government agency or instrumentality, are set forth as follows:
 - a/ If the Contractor is a corporation, the officers, directors, trustees, and each stockholder owning more than 10% of any share of stock. Joshua J. Knorr, President
6 Glenwood Drive
Bloomington, PA 17815
 - b/ If the Contractor is a partnership, each partner, whether a general or limited partner, and either the percent of interest or a description of the character and extent of interest.
 - c/ If the Contractor is a business association or a joint venture, each participant and either the percent of interest or a description of the character and extent of interest.
 - d/ If the Contractor is some other entity, the officers, the members of the governing body, and each person having an interest of more than 10%.

* If space on this form is inadequate for any requested information, this should be furnished on an attached page which is referred to under the appropriate numbered item on the form.

Page 2

Contractor's Statement for Public Disclosure

	POSITION TITLE (if any) AND PERCENT OF INTEREST OR DESCRIPTION OF <u>CHARACTER AND EXTENT OF INTEREST</u>
NAME, ADDRESS & ZIP CODE	

- NA*
5. Name, address and nature and extent of interest of each person or entity (not named in response to Item 4) who has a beneficial interest in any of the shareholders or investors named in response to Item 5 which gives such person or entity more than a computed 10% interest in the Contractor (for example, more than 20% of the stock in a corporation which holds 50% of the stock of the Contractor, or more than 50% of the stock in a corporation which holds 20% of the stock of the Contractor).

	DESCRIPTION OF CHARACTER <u>AND EXTENT OF INTEREST</u>
NAME, ADDRESS & ZIP CODE	

6. Names (if not given above) of officers and directors or trustees of any corporation or firm listed under Item 4 or Item 5 above: *NA*
7. Is the Contractor a subsidiary of or affiliated with any other corporation or any other firm or firms? YES ☒ NO. If yes, list each such corporation or firm by name and address, specify its relationship to the Contractor, and identify the officers and directors or trustees common to the Contractor and such other corporation or firm:
8. Other federal grant projects under Title I of the Housing and Community Development Act of 1974 (CP.L.93-383), as amended, in which the Contractor or any of the principals of the Contractor is or has been the contractor, or a stock-holder, officer, director or trustee, or partner of such a contractor: *NA*
9. If the Contractor or a parent corporation, a subsidiary, an affiliate or a principal of the Contractor is to participate in the work or services as a Subcontractor or consultant: *NA*
- a/ Name and address of such Subcontractor or consultant:
- b/ Has such Subcontractor within the last 10 years ever failed to qualify as a responsible bidder, refused to enter into a contract after an award has been made, or failed to complete a contract?
YES ☒ NO. If yes, explain:

Page 3

Contractor's Statement for Public Disclosure

c/ Outstanding contract bids of such Subcontractor or consultant:

<u>Awarding Agency</u>	<u>Amount</u>	<u>Date Opened</u>
NA	\$	

10. Brief statement respecting equipment, experience, financial capacity, and other resources available to such Subcontractor or consultant for the performance of the work or services involved in the contract, specifying particularly the qualifications of the personnel, the nature of the equipment, and the general experience of the Subcontractor or consultant. NA

11. a/ Does any member of the governing body or employee of the Local Public Agency or any officer or employee of the Local Public Agency who exercises any functions or responsibilities in connection with the awarding and/or carrying out of the contract have any direct or indirect personal interest in the Contractor or in the Contractor's performance under the contract? ☐ YES ☒ NO. If yes, explain:

b/ Does any member of the governing body of the locality in which the Public Improvement Project is situated or any other public official of the locality, who exercises any functions or responsibilities in the review or approval of the awarding and/or carrying out of the contract have any direct or indirect personal interest in the Contractor or in the Contractor's performance under the contract? ☐ YES ☒ NO. If yes, explain:

CERTIFICATION

I (We) Columbia Excavating LLC certify that this Contractor's Statement for Public Disclosure is true and correct to the best of my (our) knowledge and beliefs.

DATED: 6/21/21

[Signature]
(SIGNATURE)

President
(TITLE) 7398 Columbia Blvd.

Berwick PA 18603
(ADDRESS & ZIP CODE)

DATED: _____

(SIGNATURE)

(TITLE)

(ADDRESS & ZIP CODE)

1 - If the Contractor is an individual, this Statement should be signed by such individual; if a partnership, by one of the partners; if a corporation or other entity, by one of its chief officers having knowledge of the facts required by this Statement.

2 - Penalty For False Certification: Section 1001, Title 18, of the U.S.C. provides a fine of not more than \$10,000, or imprisonment of not more than five years, or both, for knowingly and willfully making or using any false writing or document, knowing the same to contain any false, fictitious or fraudulent statement or entry in a matter within the jurisdiction of any Department of the United States.

2. Requests for Proposals and Addenda

ANGELICA PARK ADA IMPROVEMENTS PROJECT
FOR THE CITY OF READING
PENNSYLVANIA

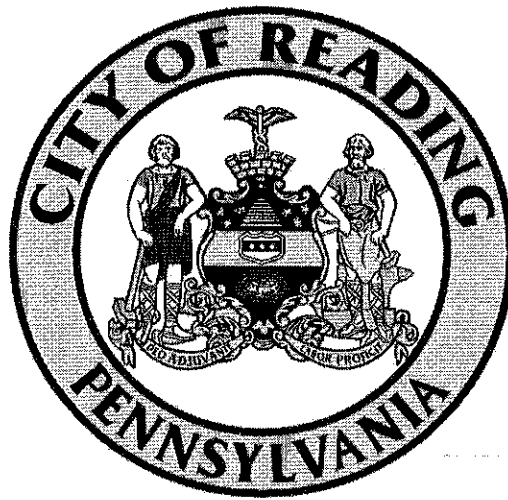


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The City of Reading recognizes the benefits of recycling, and actively supports recycling. This specification is printed double-sided on recycled paper, 20% post consumer waste.

NOTICE AND INSTRUCTIONS

CITY OF READING, PENNSYLVANIA

NOTICE TO CONTRACTORS

The City of Reading will receive sealed proposals via the PennBid program at www.pennbidprocureware.com until 3:00pm, prevailing time on 6/14/21 for the Angelica Park ADA Improvements Project for the City of Reading, Pennsylvania, as per specifications on file in the Office of the Purchasing Coordinator.

The work shall consist of:

Removal of existing features - Selective demolition of existing trail path and features within project area which are in conflict with the proposed design. This includes any excavation or rough grading required to achieve the project design.

Proposed Outdoor Developed Areas - Installation of ADA accessible asphalt path - Installation of picnic area with tables and accessible walkways - Installation of benches placed along asphalt pathway.

The Contract documents and Proposal Form for the above work can be obtained via PennBid at www.pennbidprocureware.com

There will be no prebid meeting for this project.

Each proposal shall be accompanied by bid surety in the amount of ten percent (10%) of the proposal. A certified check or bid bond will be accepted.

Attention is called to the fact that Davis-Bacon Act prevailing wage rates must be paid by the contractor and that employees shall not be discriminated against because of race, color, age, religion, sex or national origin.

The City of Reading reserves the right to accept or reject any and all bids, and to accept or reject any part of a bid, as may be in the public interest.

Funding for this project is from the U. S. Department of Housing and Urban Development Community Development Block Grant – CDBG.

Purchasing Coordinator
Tammi Reinhart

INSTRUCTIONS TO BIDDERS

PROPOSAL SUBMISSION

Proposals shall be submitted on the PennBid website at www.pennbidprocureware.com on 6/14/2021 at 3:00pm prevailing time.

Bids received at the Office of the Purchasing Coordinator after the hour specified, will not be considered. Bidders are invited to be present at the opening of bids.

BONDS

Bid security, in the amount of ten percent (10%) of the bid price shall accompany each proposal. This bid security may be a Certified or Cashier's Check, or a bid bond furnished by a surety company, satisfactory to the City of Reading. The successful bidder, upon award of contract, shall furnish at the time of execution of the same, a Maintenance Bond, Payment Bond, and Performance Bond by a surety company acceptable to the City of Reading, in an amount equal to ONE HUNDRED PERCENT (100%) of the contract to guarantee satisfactory performance. All bonds are subject to approval by the City Solicitor.

In case the contract is awarded to a bidder who fails to enter the contract or to deliver all required bonds and affidavits, the cash or check deposited shall become absolute property of the City; or if a bond has been deposited, it shall become payable immediately. Cash, checks or bonds deposited will be returned to unsuccessful bidders as soon as the contract is awarded, or all bids rejected.

INSURANCE

The Contractor, at the time of execution of the contract, shall also furnish the City with insurance certificates of adequate limits, as later indicated, to protect the City of Reading, its agents, and employees from any litigation involving Worker's Compensation, Public Liability and Property Damage, involved in the work. All subcontractors must also furnish copies of their liability insurance and Worker's Compensation Insurance certificates to the City. No subcontractor will be allowed to perform any work under this contract by the City unless such certificates are submitted to and approved by the City beforehand.

WORKERS' COMPENSATION AND PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE

The status of the Contractor in the work to be performed by the Contractor is that of any independent Contractor and as such, he shall properly safeguard against any and all injury or damage to the public, to public and private property, materials and things, and as such he alone shall be responsible for any and all damage, loss or injury to persons or property that may arise, or be incurred, in or during the conduct or progress of said work without regard to whether or not the Contractor, his sub-contractors, agents, or employees have been negligent, and the Contractor shall keep the City free and discharged of and from any and all responsibility and liability therefore of any sort or kind. The Contractor shall assume all responsibility for risks or casualties of every description, for any or all damage, loss or injury to persons or property arising out of the nature of the work from the action of the elements, or from any unforeseen or unusual difficulty. The Contractor shall assume and be liable for all blame and loss of whatsoever nature by reason of neglect or violation of any Federal, State, County or Local laws, regulations, or ordinances; the Contractor shall indemnify and save harmless the City from all suits or actions of law of any kind whatsoever in connection with this work and shall if required by the City, produce evidence of settlement of any such action before final payment shall be made by the City. Contractor's Liability Insurance Certificate shall include the save harmless clause and shall be filed with the City.

The Contractor shall maintain such insurance as will protect him from claims under worker's compensation acts and from claims for damages because of bodily injury, including death, and property damage, which may arise from and during operations under this Contract, whether such operations be by himself, by any subcontractor or anyone directly or indirectly employed by either of them. Contractor's liability insurance shall be in the names of the Contractor and the City, as their respective interests may appear. Certificates of such insurance shall be filed with the City Risk and Safety Manager.

The minimum amount of liability insurance to be maintained by the Contractor during the life of the contract shall be as follows:

Comprehensive General Liability – for bodily injury and property damage – including any liability normally covered by a general liability policy with limits of not less than \$1,000,000 per occurrence and \$2,000,000 in the annual aggregate.

Business Automobile Liability – For owned, non-owned, leased and hired vehicles with a combined single limit of not less than \$1,000,000 for bodily injury and property damage.

Professional Liability – in minimum amounts of \$1,000,000 per occurrence and \$2,000,000 aggregate.

Worker's Compensation – Statutory limits in each state in which Service Provider is required to provide Worker's Compensation coverage including "All States" and "Voluntary Compensation" endorsement, and a Waiver of Subrogation endorsement in favor of the County.

Employer's Liability – with limits of not less than \$100,000 Accident – Each Accident, \$100,000 Disease – Each Employee; and \$500,000 Disease – Policy Limit.

Prior to commencement of performance of this Agreement, Contractor shall furnish to the City a certificate of insurance evidencing all required coverage in at least the limits required herein, **naming the City of Reading, its elected officials, agents, and employees as additional insureds under the Comprehensive General Liability coverage**, and providing that no policies may be modified or cancelled without thirty (30) days advance written notice to the City. Such certificate shall be issued to: **City of Reading, 815 Washington Street, Reading, PA 19601**. All policies shall be in effect with companies holding an A.M. Best rating of "A-" or better and shall be licensed to do business in the Commonwealth of Pennsylvania. Such companies shall also be acceptable to the City.

Please forward a certificate of insurance verifying these insurance requirements.

Liability insurance shall include automobile coverage, including "hired automobiles and non-ownership automobiles."

Liability insurance shall include the hazard of collapse, damage to underground utilities, underground blasting, and excavation. Prior to any blasting which may be required, blasting insurance shall be obtained by the Contractor in an amount satisfactory to the City Engineer.

Liability insurance shall include the hazard of building collapse and of damage to adjoining properties and/or to individuals located within or adjacent to each project site.

All subcontractors performing work under this contract must furnish to the City a copy of their Certificate of Insurance for Workers' Compensation and liability for bodily injury and property damage.

WAGES AND EMPLOYMENT REQUIREMENTS

Bidder agrees that not less than the Federal Davis Bacon Act prevailing wages will be paid.

EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this Contract, the Contractor agrees as follows:

The Contractor will not discriminate against any employees or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices which may be provided by the City setting forth the provisions of this nondiscrimination clause.

The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

The Contractor will send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or workers' representatives of the Contractor, commitments under this Section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

In the event of the Contractor's noncompliance with the non-discrimination clauses of this Contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further City contracts.

The Contractor will include the provisions of these paragraphs in every subcontract or purchase order unless exempted.

EMPLOYMENT OF CERTAIN PERSONS PROHIBITED

No person who, at the time, is serving sentence in a penal or correctional institution shall be employed on the work covered by this Contract.

SUPERVISION OF WORKERS

The Contractor shall provide qualified supervision of each crew at all times while working under this contract. Each supervisor shall be authorized by the Contractor to accept and act upon all directives issued by the City. Failure for the supervisor to act on said directives shall be sufficient cause to give notice that the Contractor is in default of the contract unless such directives would create potential personal injury or safety hazards.

This contract will be under the direct supervision of the City or its authorized representatives. Any alterations or modifications of the work performed under this contract shall be made only by written agreement between the Contractor and the City authorized representatives and shall be made prior to commencement of the altered or modified work. No claims for extra work or materials shall be allowed unless covered by written agreement.

SUBCONTRACTS

The Contractor will not be allowed to subcontract work under this contract unless written approval is granted by the City. The Subcontractor, as approved, shall be bound by the conditions of the contract between the City and the Contractor. The authorization of a Subcontractor is to perform in accordance with all terms of the contract and specifications. All required notices, work orders, directives, and requests for emergency services will be directed to the Contractor. All directions given to the Subcontractor in the field shall bind the Contractor as if the notice had been given directly to the Contractor.

QUALITY

Where a bid is asked for a certain article or "Approved Equal" and the bidder intends to furnish an article which the bidder considers equal to the one named, the bidder must specify in the bid the name and grade of said article. All disputes concerning grade and quality of materials or work shall be determined by a person duly authorized by the City.

TIME OF COMPLETION

The bidders are herewith cautioned that the time of completion shall be as stated on the bid form. To insure timely completion, the successful bidder will be required to furnish adequate equipment, and qualified personnel in sufficient numbers at all times.

Where a date is set for delivery of materials or the performance of work, said materials must be delivered, or work performed, in accordance with the specifications or description herein contained on or before said date, or the order to the delinquent party will be canceled and awarded to the next lowest responsible bidder.

BUSINESS PRIVILEGE TAX

The City of Reading imposes a Business Privilege License, at \$55.00 per calendar year. In addition, a Business Privilege Tax is imposed at the rate of 2-1/4 mills upon the gross receipts attributable to business conducted within the City of Reading.

PERMITS/LICENSES

The Contractor shall, at his expense, pay all fees and procure all necessary licenses and permits needed to conduct the work required under the terms of this contract. The Contractor shall give any and all necessary formal notices required in conjunction with the lawful prosecution of the work of this contract.

BASIS OF PAYMENT

All prices to be quoted F.O.B. Reading, PA destination. The City of Reading is tax exempt.

OBSERVANCE OF LAWS, ORDINANCES AND REGULATIONS

The Contractor at all times during the term of this contract shall observe and abide by all Federal, State, and Local laws which in any way affect the conduct of the work and shall comply with all decrees and orders of courts of competent jurisdiction. The Contractor shall comply fully and completely with any and all applicable State and Federal Statutes, rules and regulations as they relate to hiring, wages, and any other applicable conditions of employment.

PRE-BID MEETING

There will be no prebid meeting for this project.

WITHDRAWAL OF PROPOSALS/BIDS

After a bid has been opened, it may not be withdrawn except as provided by Act of January 23, 1974, P.L. 9 No. 4, as same may be amended.

No bids may be withdrawn for a period of ninety (90) days following the formal opening and receipt of bids by the City of Reading.

BID REJECTION

The City of Reading reserves the right to reject any or all bids and to accept or reject any part of any bid. It also reserves the right to waive any technical defects or minor irregularities, which in its discretion, is in the best interest of the City.

EXECUTION OF CONTRACT

The successful Bidder shall, within ten (10) calendar days after mailing of contract documents by the City to the Principal, enter into contract with the City on form as included within the bidding documents for the appropriate bonds, indemnities and insurances required hereunder.

The contract, when executed, shall be deemed to include the entire agreement between the parties; the Contractor shall not base any claim for modification of the contract upon any prior representation or promise made by the representatives or the City, or other persons.

All attachments are considered as part of this document.

METHOD OF PAYMENT

Payments shall be based on an invoice submitted by the General Contractor or approved representative Construction Manager. The City shall have the right to withhold disbursement funds if in the City's opinion construction work for which payment has been requested is of poor workmanship, contrary to any applicable codes and contract specifications, violation of appropriate paperwork requirements that are not up to date and approved for this billing period, General Contractor fails to comply with this Agreement, or for other conditions or circumstances which the City deems not to be in the best interest of the public.

Ten percent (10%) of each General Contractor invoice request shall be retained by the City on this contract until it is completed up to City codes and contract specifications and approved by a City Official or person representing a City Official (Architect or Engineer).

ACCESS TO ACCOUNTING RECORDS

The contractor shall certify that all materials, equipment, and labor charged to the City are accounted for and shall keep such full and detailed accounts as may be necessary for proper financial management under this Agreement. The City or its representative shall be afforded access to all the Contractor's records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to this Contract, and the Contractor shall preserve all such records for a period of three (3) years, or for such longer period as may be required by law, after the final payment.

ASSIGNMENT OF REFUND RIGHTS

The City is not subject to federal, state, or local sales or use tax or federal excise tax. Contractor hereby assigns to City all of its rights, title, and interest in any sales or use tax which may be refunded as a result of the purchase of any materials purchased in connection with the Contract and Contractor, unless directed by the City, shall not file a claim for any sales or use tax refund subject to this assignment. Contractor authorizes the City, in its own name or the name of the Contractor, to file a claim for a refund of any sales or use tax subject to this assignment.

CONTRACTS WITH SUBCONTRACTORS

The Contractor agrees to include the above references paragraphs in any contract with subcontractors and to provide proof thereof to the City of Reading if requested.

NOTICE TO PROCEED

The Contractor shall begin work on the job site within ten (10) days after receiving Notice to Proceed from the City.

DISCONTINUANCE OF WORK

Any practice obviously hazardous as determined by the City shall be immediately discontinued by the Contractor upon receipt of either written or oral notice to discontinue such practice.

CONTRACT TERMINATION

The City shall have the right to terminate a contract or a part thereof before the work is completed in the event:

1. Previous unknown circumstances arise making it desirable in the public interest to void the contract.
2. The contractor is not adequately complying with the specifications.
3. The contractor refuses, neglects, or fails to supply properly trained or skilled supervisory personal and/or workers or proper equipment.
4. The contractor in the judgment of the City is unnecessarily or willfully delaying the performance and completion of the work.
5. The contractor refuses to proceed with work when and as directed by the City.
6. The contractor abandons the work.

Contractors who have questions concerning various aspects of this Contract should contact the following persons:

QUESTIONS REGARDING SPECIFICATIONS OR BID PROCESS

To ensure fair consideration for all proposers, the City prohibits communication to or with any department director, division manager or employee during the submission process with the exception of those questions relative to interpretation of specifications or the proposal process. No interpretations of the meaning of the RFP documents will be made to any bidder orally.

Every request for such interpretation shall be submitted via the PennBid Program (pennbid.procurement.com) to be given consideration must be sent in prior to 5/25/2021.

Any and all such interpretation will be in the form of an Addendum to the Contract Documents and will be issued via PennBid to all prospective proposers no later than 6/3/2021.

Notice: Payment of invoices are subject to the terms and conditions of the sources of funding for this project.

THE FOLLOWING INSTRUCTIONS FOR CONTRACTORS REGARDING AFFIRMATIVE ACTION ARE PROVIDED FOR INFORMATION PURPOSES. THE SUCCESSFUL BIDDER ASSUMES THE OBLIGATION TO TAKE WHATEVER AFFIRMATIVE ACTIONS ARE NECESSARY TO ASSURE EQUAL EMPLOYMENT OPPORTUNITY IN ALL ASPECTS OF EMPLOYMENT, IRRESPECTIVE OF RACE, COLOR, CREED, OR NATIONAL ORIGIN.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT
OPPORTUNITY (EXECUTIVE ORDER 11246, AS AMENDED)**

- (1) The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
- (2) The goals are timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables	Goals for Minority Participation in Each Trade	Goals for Female Participation for Each Trade
Until Further Notice	2.5% for all trades	6.9% for All Trades

These goals are applicable to all the Contractor's construction work (whether or not it is federal or federally-assisted) performed in the covered area.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

- (3) **THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE DIRECTOR OF THE OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS WITHIN 10 WORKING DAYS OF AWARD OF ANY CONSTRUCTION SUBCONTRACT IN EXCESS OF \$10,000 AT ANY TIER FOR CONSTRUCTION WORK UNDER THE CONTRACT RESULTING FROM THIS SOLICITATION. THE NOTIFICATION SHALL LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE SUBCONTRACTOR; EMPLOYER IDENTIFICATION NUMBER; ESTIMATED DOLLAR AMOUNT OF THE SUBCONTRACT; ESTIMATED STARTING AND COMPLETION DATES OF THE SUBCONTRACT; AND, THE GEOGRAPHICAL AREA IN WHICH THE CONTRACT IS TO BE PERFORMED.**

**OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS
THE CURTIS CENTER SUITE 750 WEST
170 SOUTH INDEPENDENCE MALL WEST
PHILADELPHIA, PA 19106-3309
PHONE (215) 861-5764**

As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the City of Reading, Pennsylvania.

State of _____)
County of _____) ss.

I, _____, Notary Public, being duly sworn, deposes and says that he
is _____ of _____,
(Name of Organization)

and that the answers to the foregoing questions and all statements therein contained are true and correct.

Subscribed and sworn to before me this _____ day of _____, _____.

NOTARY PUBLIC

My Commission Expires:

DOCUMENTS TO BE SUBMITTED WITH BID

PROPOSAL

Proposal of:

Name:

Address:

TO: Mayor Moran,
City of Reading
815 Washington Street
Reading, PA 19601

Dear Mayor Moran:

In conformity with City Plans and specifications, all as prepared by the Public Works Department and after an examination of the site of the work, and the Contract Documents, including the instructions to Bidders, Form of Proposal, Bid Bond and Conditions, the undersigned submits this proposal, and encloses herewith as proposal guaranty, a Certified or Treasurer's Check, or Bid Bond, in an amount not less than ten percent (10%) of the bid herein submitted, which it is understood will be forfeited if this proposal is accepted by the City of Reading, and the undersigned fails to furnish approved bonds and execute the contract within the time stipulated; otherwise, the guarantee will be returned.

The undersigned declares that no Member of Council, Director of Department, Division Manager, deputy thereof or clerk therein, or other officer of the City of Reading, is directly or indirectly interested as principal, surety or otherwise in this proposal or has any supervision or overall responsibility for the implementation in administration of the contract.

It is certified that the undersigned is the only person(s) interested in this proposal as principal and that the proposal is made without collusion with any person, firm, or corporation.

It is hereby agreed to execute the contract and furnish surety company bonds, on the forms enclosed in the Contract Documents, in the amount of one hundred percent (100%) of the contract price within ten (10) days of mailing of the contract documents from the City to the Principal, and to begin work within ten (10) days after receipt of Notice to Proceed from the City of Reading.

It is proposed to furnish and deliver all materials, tools, equipment, power, tests and transportation, perform all labor, superintendence, and all means of construction, and do all incidental work, and to execute, construct and finish in an expeditious and workman-like manner, in accordance with the plans and specifications, to the satisfaction and acceptance of the Department of Public Works of the City of Reading and its Engineer for the total base bid as herein bid:

_____(written)

\$_____ (figures).

IN WITNESS WHEREOF, this proposal has been executed this ____ day _____ A.D. 20____, by the setting hereunto of his or its hand and seal.

(INDIVIDUAL: PRINCIPAL)

_____(Seal)
(Signature of Individual)

Witness:

Trading and Doing Business as:

(PARTNERSHIP PRINCIPAL)

Witness:	_____ (Seal) (Name of Partnership)
_____	By: _____ (Seal) (Partner)
Witness:	
_____	By: _____ (Seal) (Partner)
Witness:	
_____	By: _____ (Seal) (Partner)
Witness:	
_____	By: _____ (Seal) (Partner)

(CORPORATION PRINCIPAL)

Attest:

(Assistant Secretary)

(Name of Corporation)

By: _____
(Vice) President

(CORPORATE SEAL)

or (if appropriate)

(Name of Corporation)

By: _____
Authorized Representative

FORM OF BID BOND

BOND

KNOW ALL MEN BY THESE PRESENTS that we, the undersigned,

_____, as Principal (the "Principal"), and _____

a corporation organized and existing under laws of the _____ of _____, as

Surety (the "Surety"), are held and firmly bound unto _____ as

Obligee (the "Obligee"), as hereinafter set forth, in the full and just sum of

_____ Dollars

(\$ _____),

lawful money of the United States of America, for the payment of which sum we bind ourselves, our

heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WITNESSETH THAT:

WHEREAS, the Principal herewith is submitting a Proposal to the Obligee to perform the

_____ Work in connection with the construction of

_____ pursuant to plans, specifications and other documents constituting the Contract Documents which are incorporated into said Proposal by reference (the "Contract Documents"), as prepared by the Department of Public Works, City Hall, 815 Washington Streets, Reading, PA 19601-3690.

WHEREAS, it is a condition of the receipt and consideration by the Obligee of said Proposal that it shall be accompanied by proposal guaranty to be held by the Obligee on terms hereinafter set forth.

NOW, THEREFORE, the condition of this Bond shall be such that, if the Principal, within ten (10) days after mailing of contract document by the City to Principal, shall furnish to the Obligee a Performance Bond, Payment Bond and upon award of a contract to him by the Obligee, shall execute and deliver the Agreement and furnish to the Obligee proper evidence of effectiveness of insurance coverage, respectively within the time, in the forms and in the amounts, as appropriate, required by the Contract Documents, then this Bond shall be void, otherwise, this Bond shall remain in full force and effect.

The Principal and the Surety agree to pay to the Obligor the difference between the amount of said Proposal, as accepted by the Obligor, and any higher amount for which the required work shall be contracted for by the Obligor, together with any additional advertising costs, architect's fees, legal fees and any all other fees and expenses incurred by the Obligor by reason of the failure of the Principal to enter into such Agreement with the obligor, or to furnish such Contract Bonds, or to furnish evidence of effectiveness of such insurance coverage; provided, however, that (1) the obligation of the Surety shall not exceed the stated principal amount of this Bond; and (2) if the Obligor should not procure an executed contract with any other person for the performance of the work contemplated in said Proposal, as accepted by the Obligor, upon the same terms and conditions, other than price, as provided in the Contract Documents, within the period provided in the Contract Documents during which no proposals of bidders may be withdrawn, whether because of the lack of other proposals, or because of the inability or refusal of any other bidder to enter into an appropriate contract, or because the cost under any higher proposal would be greater than the Obligor shall determine, in its sole discretion, that it can afford, then the Principal and the Surety agree to pay to the Obligor the full amount of this Bond as liquidated damages.

IN WITNESS WHEREOF, the Principal and the Surety cause this Bond to be signed, sealed and delivered this _____ day of _____, 20____.

(INDIVIDUAL PRINCIPAL)

(Seal)

(Signature of Individual)

Witness:

Trading and Doing Business as:

(PARTNERSHIP PRINCIPAL)

(PARTNERSHIP PRINCIPAL)

(Seal)

Witness:

(Seal)

Witness:

(Seal)

Witness:

(Seal)

Witness:

(Seal)

(Name of Partnership)

By: _____
(Partner)

By: _____
(Partner)

By: _____
(Partner)

By: _____
(Partner)

(CORPORATION PRINCIPAL)

(Name of Corporation)

By: _____
(Vice) President

Attest:

(Assistant Secretary)

(Corporate Seal)

(OR, IF APPROPRIATE)

(Name of Corporation)

By: _____
(Authorized Representative)

Signed _____

(Title)

Subscribed and sworn to before me on

this ____ day of _____, 20 ____

(Title)

My Commission Expires:

(CORPORATION SURETY)

(Name of Corporation)

By: _____
(Attorney-In-Fact)

Witness:

(Corporate Seal)

**** Attach an appropriate Power of Attorney, valid and in effect as of the date of this affidavit, evidencing the authority of the Attorney-In-Fact to act in behalf of the corporation.**

NON-COLLUSION AFFIDAVIT

INSTRUCTIONS FOR NON-COLLUSION AFFIDAVIT

This Non-Collusion Affidavit is material to any contract pursuant to this bid. According to the Pennsylvania Antibid-Rigging Act, 73 P.S. 1611 et seq., governmental agencies may require Non-Collusion Affidavits to be submitted together with bids.

This Non-Collusion affidavit must be executed by the member, officer, or employee of the bidder who is authorized to legally bind the bidder.

Bid rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the submission of bids are unlawful and may be subject to criminal prosecution. The person who signs the Affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the bidder with responsibilities for the preparation, approval, or submission of the bid.

In the case of a bid submitted by a joint venture, each party to the venture must be identified in the bid documents, and an Affidavit must be submitted separately on behalf of each party.

The term "complementary bid" as used in the Affidavit has the meaning commonly associated with that term in the bidding process, and includes the knowing submission of bids higher than the bid of another firm, any intentionally high or noncompetitive bid, and any form of bid submitted for the purpose of giving a false appearance of competition.

Failure to file an Affidavit in compliance with these instructions will result in disqualification of the bid.

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of _____

County of _____

_____, being first duly sworn, deposes and says that:

He/She is _____ (Owner, Partner, Officer, Representative or Agent) of _____, the Bidder that has submitted the attached Bid or Bids;

He/She is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

Such Bid is genuine and is not a collusive or sham Bid;

Neither the said Bidder nor any of its officers; partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication of conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Reading or any person interested in the proposed Contract;

The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant; and,

Neither the said Bidder nor any of its officers, partners, owners, agents or parties in interest, have any interest, present or prospective, that can be reasonably construed to result in a conflict of interest between them and the City of Reading, which the Bidder will be required to perform.

I state that _____ understands
(Name of Firm)

and acknowledges that the above representations are material and important, and will be relied on by the City of Reading in awarding the contract(s) for which this bid is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from the City of Reading of the true facts relating to the submission of bids for this contract.

(Name and Company Position)

SWORN TO AND SUBSCRIBED
BEFORE ME THIS _____
DAY OF _____, 20____

Notary Public

My Commission Expires

**PROVIDER'S CERTIFICATION OF NON-INDEBTEDNESS
TO THE CITY OF READING**

Provider hereby certifies and represents that Provider and Provider's parent company(ies) and subsidiary(ies) are not currently indebted to the City of Reading (the "City"), and will not at any time during the term of this Contract (including any extensions or renewals thereof) be indebted to the City, for or on account of any delinquent taxes, liens, judgments, fees or other debts for which no written agreement or payment plan satisfactory to the City has been established. In addition to any other rights or remedies available to the City at law or in equity, Provider acknowledges that any breach or failure to conform to this certification may, at the option of the City, result in the withholding of payments otherwise due to Provider and, if such breach or failure is not resolved to the City's satisfaction within a reasonable timeframe specified by the City in writing, may result in the offset of any such indebtedness against said payments and/or the termination of this Contract for default (in which case Provider shall be liable for all excess costs and other damages resulting from the termination).

NAME OF PROVIDER

By: _____
AUTHORIZED SIGNATORY

Title: _____
PRESIDENT OR VICE PRESIDENT

Attest: _____

RESOLUTION NO. 192-92

WHEREAS, reportedly, twenty-five cement manufacturing facilities in the United States are currently burning well over two billion pounds a year of hazardous waste as a source of fuel and additional profit in the cement manufacturing process; and

WHEREAS, approximately twenty cement manufacturing facilities are seeking permission to start this practice; and

WHEREAS, sufficient data and evidence as to the safety of cement products made from hazardous waste has not been proven; and

WHEREAS, it is in the best interest of the citizens of the City of Reading in regard to their health and quality of life that cement derived from hazardous waste be banned from any City projects.

NOW, THEREFORE, the Council of the City of Reading resolves that the City of Reading will not purchase cement from any facility that burns hazardous waste as fuel in its manufacturing process, nor allow the use of concrete made from this type of cement. This policy shall be reflected in city bid specifications.

PASSED COUNCIL April 1, 1993

WARREN H. HAGGERTY, JR.
Mayor

ATTEST:

RUTH M. THOMPSON
City Clerk

STATEMENT REGARDING MANUFACTURE OF CEMENT

The following statement is to be signed by an authorized officer of the company.

The undersigned contractor hereby certifies in accordance with City of Reading Resolution #192-92, that any cement used in performance of this contract shall not have been manufactured by a process using hazardous materials, as defined by the Environmental Protection Agency, in the manufacture and makeup thereof.

CONTRACTOR

By: _____

Title: _____

ATTEST:

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

1. Name of Bidder: _____
2. Permanent main office address: _____
3. When organized: _____
4. If a corporation, where incorporated: _____
5. How many years have you been engaged in the contracting business under your present firm or trade name: _____
6. Contracts on hand: (Schedule these on an attached sheet, showing amount of each contract and the appropriate anticipated dates of completion.)
7. Have you ever failed to complete any work awarded to you? If so, where and why?

8. Have you ever defaulted on a contract ? _____. If so, where and why?

9. List the more important projects recently completed by your company on an attached sheet, stating the approximate cost of each, and the month and year completed.
10. List your major equipment available for this contract.

11. Describe experience in construction work similar in importance to this project on an attached sheet.

Page 2
Statement of Bidder's Qualifications

12. Background and experience of the principal members of your organization, including the officers.

13. Credit available: \$

14. Give Bank reference:

15. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the City?

16. (A) Have you ever been a party to or otherwise involved in any action or legal proceeding involving matters related to race, color, nationality or religion?

 If so, give full details.

(B) Have you ever been accused of discrimination based upon race, color, nationality or religion in any action or legal proceeding including any proceeding related to any Federal Agency?

 If so, give full details

17. All prospective bidders are required to present proof of an acceptable disposal method approved by the Pennsylvania Department of Environmental Protection. The proof may consist of a copy of a State Solid Waste Disposal Permit issued to the prospective bidder by the Pennsylvania Department of Environmental Protection, or a letter of approval from the Pennsylvania Department of Environmental Protection for the use of a proposed or existing disposal facility which has a permit or is under review for a permit. Same to be in accordance with Section 7 (a) application and permits, Pennsylvania Solid Waste Management - "Act 241."

Page 3
Statement of Bidder's Qualifications

18. The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information requested by the "City of Reading" in verification of the recitals comprising this Statement of Bidder's Qualifications.
19. Name, address, phone number, and contact person at surety company who will provide bonding for this contract:
- _____
- _____
20. Name, address, phone number, and contact person at insurance company who will provide insurance coverage for this contract:
- _____
- _____
21. The undersigned hereby authorizes any person, firm or corporation to furnish any information requested by the City of Reading in verification of the recitals comprising this Statement of Bidder's Qualifications.

DATED at _____ this _____ day of _____, 20_____.

(NAME OF BIDDER)

BY: _____

TITLE: _____

EQUAL EMPLOYMENT OPPORTUNITY AND SECTION 3 QUESTIONNAIRE

(Please complete the following information and answer all questions; use an attached sheet as necessary.)

1. (a) Contractor: How many persons from the City of Reading _____, low income City residents _____, and minorities: _____ Black, _____ Hispanic, _____ White, _____ Asian/Pacific Islander, _____ Other, are on your present basic payroll?
- (b) Subcontractor: How many persons from the City of Reading _____, low income City residents _____, and minority groups: _____ Black, _____ Hispanic, _____ White, _____ Asian/Pacific Islander, _____ Other, are on your present basic payroll?
2. How many City of Reading residents _____, low income City residents _____, and minorities: _____ Black, _____ Hispanic, _____ White, _____ Asian/ Pacific Islander, _____ Other, are presently in training programs run by your company, your subcontractors, and associations to which you or your subcontractors may belong or with unions with which you and your subcontractors have collective bargaining agreements?

3. Does your firm, subcontractors, associations to which you or they belong or unions with which you or your subcontractors have collective bargaining agreements a definite plan for creating career situations, training and employment for residents of the City of Reading, low income citizens, and minorities? _____. If so, please include a copy of the plan with your formal bid and specify the number of individuals (from the groups referred to previously), to be placed in apprenticeship or other training situations. When is the program scheduled to begin?_____ What portion of the program is already in operation?
4. What plans does your firm have to utilize business concerns located in, or owned in substantial part by persons residing in the City?

CERTIFICATION OF NON-SEGREGATED FACILITIES

The Bidder certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The Bidder certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The Bidder agrees that a breach of this certification will be a violation of the Equal Opportunity clause in any contract resulting from acceptance of this bid. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion or national origin, because of habit, local custom or otherwise. The Bidder agrees that (except where he has obtained identical certification from proposed subcontractors for specific time periods) he will obtain identical certification from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certifications in his files.

Note: The penalty for making false statement in offers is prescribed in 18 U.S.C. 1001.

DATE: _____,

BY: _____
(NAME OF BIDDER)

(TITLE)

OFFICIAL ADDRESS:

CONTRACTOR'S STATEMENT FOR PUBLIC DISCLOSURE *

1. a/ Name of Contractor:

 b/ Address and Zip Code of Contractor:
2. If the Contractor is not an individual doing business under his own name, the Contractor has the status indicated below and is organized or operating under the laws of _____:

 _____ a corporation

 _____ a partnership known as:

 _____ a business association or a joint venture known as:

 _____ a Federal, State or Local government or instrumentality thereof

 _____ other (explain)
3. If the Contractor is not an individual or a government agency or instrumentality, give date of organization: _____
4. Names, addresses, title of position (if any), and nature and extent of the interest of the officers and principal members, shareholders, investors other than a government agency or instrumentality, are set forth as follows:
 - a/ If the Contractor is a corporation, the officers, directors, trustees, and each stockholder owning more than 10% of any share of stock.
 - b/ If the Contractor is a partnership, each partner, whether a general or limited partner, and either the percent of interest or a description of the character and extent of interest.
 - c/ If the Contractor is a business association or a joint venture, each participant and either the percent of interest or a description of the character and extent of interest.
 - d/ If the Contractor is some other entity, the officers, the members of the governing body, and each person having an interest of more than 10%.

* If space on this form is inadequate for any requested information, this should be furnished on an attached page which is referred to under the appropriate numbered item on the form.

Page 2

Contractor's Statement for Public Disclosure

NAME, ADDRESS & ZIP CODE	POSITION TITLE (if any) AND PERCENT OF INTEREST OR DESCRIPTION OF <u>CHARACTER AND EXTENT OF INTEREST</u>
5.	Name, address and nature and extent of interest of each person or entity (not named in response to Item 4) who has a beneficial interest in any of the shareholders or investors named in response to Item 5 which gives such person or entity more than a computed 10% interest in the Contractor (for example, more than 20% of the stock in a corporation which holds 50% of the stock of the Contractor, or more than 50% of the stock in a corporation which holds 20% of the stock of the Contractor).

- | NAME, ADDRESS & ZIP CODE | <u>DESCRIPTION OF CHARACTER
AND EXTENT OF INTEREST</u> |
|--------------------------|--|
| 6. | Names (if not given above) of officers and directors or trustees of any corporation or firm listed under Item 4 or Item 5 above: |
| 7. | Is the Contractor a subsidiary of or affiliated with any other corporation or any other firm or firms?
___ YES ___ NO. If yes, list each such corporation or firm by name and address, specify its relationship to the Contractor, and identify the officers and directors or trustees common to the Contractor and such other corporation or firm: |
| 8. | Other federal grant projects under Title I of the Housing and Community Development Act of 1974 (CP.L.93-383), as amended, in which the Contractor or any of the principals of the Contractor is or has been the contractor, or a stock-holder, officer, director or trustee, or partner of such a contractor: |
| 9. | If the Contractor or a parent corporation, a subsidiary, an affiliate or a principal of the Contractor is to participate in the work or services as a Subcontractor or consultant: |
| a/ | Name and address of such Subcontractor or consultant: |
| b/ | Has such Subcontractor within the last 10 years ever failed to qualify as a responsible bidder, refused to enter into a contract after an award has been made, or failed to complete a contract?
___ YES ___ NO. If yes, explain: |

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Contractor's Statement for Public Disclosure

c/ Outstanding contract bids of such Subcontractor or consultant:

Awarding AgencyAmountDate Opened

\$

10. Brief statement respecting equipment, experience, financial capacity, and other resources available to such Subcontractor or consultant for the performance of the work or services involved in the contract, specifying particularly the qualifications of the personnel, the nature of the equipment, and the general experience of the Subcontractor or consultant.
11. a/ Does any member of the governing body or employee of the Local Public Agency or any officer or employee of the Local Public Agency who exercises any functions or responsibilities in connection with the awarding and/or carrying out of the contract have any direct or indirect personal interest in the Contractor or in the Contractor's performance under the contract? ☐ YES ☐ NO. If yes, explain:
- b/ Does any member of the governing body of the locality in which the Public Improvement Project is situated or any other public official of the locality, who exercises any functions or responsibilities in the review or approval of the awarding and/or carrying out of the contract have any direct or indirect personal interest in the Contractor or in the Contractor's performance under the contract? ☐ YES ☐ NO. If yes, explain:

CERTIFICATION

I (We) _____ certify that this Contractor's Statement for Public Disclosure is true and correct to the best of my (our) knowledge and beliefs.

DATED: _____

DATED: _____

(SIGNATURE)

(SIGNATURE)

(TITLE)

(TITLE)

(ADDRESS & ZIP CODE)

(ADDRESS & ZIP CODE)

1 - If the Contractor is an individual, this Statement should be signed by such individual; if a partnership, by one of the partners; if a corporation or other entity, by one of its chief officers having knowledge of the facts required by this Statement.

2 - Penalty For False Certification: Section 1001, Title 18, of the U.S.C. provides a fine of not more than \$10,000, or imprisonment of not more than five years, or both, for knowingly and willfully making or using any false writing or document, knowing the same to contain any false, fictitious or fraudulent statement or entry in a matter within the jurisdiction of any Department of the United States.

(ONLY AS NEEDED)

CERTIFICATE OF ACKNOWLEDGMENT OF RECEIPT OF ADDENDUM

THE CITY OF READING

ADDENDUM NO. _____ TO BID FOR: _____

OPENING DATE: _____

NOTICE

This addendum must be signed, attached to, and returned with your proposal to the City of Reading by the time and date indicated above. This sheet is now part of the Contract Documents.

I, HEREBY CERTIFY, THAT THE CHANGES COVERED BY THIS ADDENDUM HAVE BEEN TAKEN INTO ACCOUNT WITH THE TOTAL BID PRICE.

Firm Name (Type or Print) _____

Authorized Signature _____ Title _____

Name (Type or Print) _____ Date _____

CONTRACT DOCUMENTS

C O N T R A C T

NOTE; This contract is not to be filled in until contract is awarded.

THIS AGREEMENT, made and concluded this _____ day of _____, in the year two thousand and _____, by and between the City of Reading, a municipal corporation of the Commonwealth of Pennsylvania, located in the County of Berks, said Commonwealth, party of the first part, and _____, Contractor, party of the second part, pursuant to law and to the provisions and requirements of the ordinance of the City of Reading, Pennsylvania.

WITNESSETH, that the parties to these presents, each in consideration of the agreements on the part of the other herein contained, have agreed, and hereby do agree, the party of the first part for itself, its successors and assign, and the party of the second part for itself, himself, or themselves, its successors, or his or their executors and administrators as follows:

CONTRACTOR'S GENERAL AGREEMENT. The Contractor covenant, promises and agrees to and with the party of the first part, for the consideration hereinafter mentioned and contained, and under the penalty expressed in a bond bearing date of _____ and hereto attached, to furnish all the material, machinery, equipment, tools, labor and transportation, except as hereinafter otherwise provided, at his own cost, necessary or proper for the purpose of executing the work embraced in this contract in a good, substantial and workmanlike manner, and in strict accordance with the specifications pertaining to this contract a herein contained.

PARTS OF CONTRACT. The Location Map; Notice to Contractors; Bid Instructions; Documents to be Submitted with Bid; Contract Documents; Documents to be Submitted During the Course of the Contract; Wage Rate Determinations; Notice of Preconstruction Requirements and Pre-Construction Conference Questionnaire; Affirmative Action Requirements; General Provisions; Supplementary General Terms and Conditions; Technical Specifications; Supplementary Technical Specifications; and Correspondence and Supportive Documentation shall each form a part of the Contract.

THE CONTRACT SUM. The City shall pay the Contractor for the performance of the Contract, subject to additions and deductions provided therein, in current funds as follows: _____ (state here the lump sum amount, unit prices, or both as desired in individual cases.)

Where the quantities originally contemplated are so changed that application of the agreed unit price to the quantity of work performed is shown to create a hardship to the Owner or the Contractor, there shall be an equitable adjustment of the Contract to prevent such hardship.

TIME & MANNER OF DOING WORK. The party of the second part agrees to commence the construction of the work to be done under this contract, immediately upon receiving written notice from the Director of Public Works, or other applicable Director, so to do and to complete the entire work as specified in the technical specifications, it being expressly agreed and understood that the time of beginning, rates of progress and time of completion of the work are essential under this contract. Time is to be considered to be the essence of this contract.

STIPULATED DAMAGES. The Contractor shall begin work within ten (10) days of receipt of written notice from the applicable Director, to do so. If the Contractor fails to complete and finish the work in conformity with the terms and provisions of this Contract within the time hereinbefore specified, he shall pay to the City the sum of Five Hundred Dollars (\$500.00) for each and every day thereafter, including Sundays and holidays, that the finishing of the Contract is delayed, which sum shall be construed as stipulated and liquidated damages and not as a penalty and shall be deducted from the amount due by the terms of the Contract; provided, however, that in case of justifiable delay, the City shall extend the time for completion of said work as provided for in Article G.7, but no extension of time for any reason beyond the time fixed herein for the completion of the work shall be deemed a waiver by the City of the right to abrogate this Contract for abandonment for delay.

LIENS. Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the City a complete release of all liens arising out of this Contract, or receipts in full in lien thereof, and, if required in either case, an affidavit that so far as he has knowledge or information the release and receipts include all the labor and material for which a lien could be filed. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the City all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

BASIS OF CONTRACT. This contract is founded on _____

IN WITNESS WHEREOF, the said City of Reading has caused this Agreement to be executed by its Mayor, and its corporate seal to be hereunto affixed, duly attested by its City Clerk, and the party of the second part.

the day and year first above written.

CITY OF READING

By: _____
Mayor

ATTEST:

City Clerk

Signed and Sealed in the Presence of

CONTRACTOR

PRESIDENT

SECRETARY

PERFORMANCE BOND

Know All Men By These Presents that we, _____
(CONTRACTOR)

hereinafter called the PRINCIPAL, and _____
(SURETY)

hereinafter called the SURETY, a corporation organized and existing under the laws of
the _____ are held and firmly bound unto
_____ hereinafter called the OBLIGEE, as hereinafter

set forth, in the full and just sum of _____ Dollars

(\$ _____), lawful money of the United States of America, for the payment of which sum we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WITNESSETH THAT:

WHEREAS, the PRINCIPAL heretofore submitted to the OBLIGEE a certain PROPOSAL, dated _____, 20____, to perform the WORK for the OBLIGEE, in connection with the _____ as set forth in CONTRACT DOCUMENTS.

WHEREAS, the OBLIGEE is a "contracting body" under provisions of Act No. 385 of the General Assembly of the Commonwealth of Pennsylvania, approved by the Governor on December 20, 1967, known and cited as the "Public Works Contractors Bond Law of 1967" (the "Act"); and

WHEREAS, the Act, in Section 3(a), requires that, before an award shall be made to the PRINCIPAL by the OBLIGEE in accordance with the PROPOSAL, the PRINCIPAL shall furnish this BOND to the OBLIGEE, with this BOND to become binding upon the award of the CONTRACT to the PRINCIPAL by the OBLIGEE in accordance with the PROPOSAL; and

WHEREAS, it also is a condition of the CONTRACT DOCUMENTS that this BOND shall be furnished by the PRINCIPAL to the OBLIGEE; and

WHEREAS, under the CONTRACTOR DOCUMENTS, it is provided inter alia, that if the PRINCIPAL shall furnish this BOND to the OBLIGEE, and if the OBLIGEE shall make an award to the PRINCIPAL, in accordance with the PROPOSAL, then the PRINCIPAL and OBLIGEE shall enter into a CONTRACT with respect to performance of the WORK, the form of which CONTRACT is set forth in the CONTRACT DOCUMENTS.

NOW, THEREFORE, the terms and conditions of this BOND are and shall be that if the PRINCIPAL will truly and faithfully comply with and perform the WORK in accordance with the CONTRACT DOCUMENTS, at the time and in the manner provided in the CONTRACT DOCUMENTS, and if the PRINCIPAL shall satisfy all claims and demands incurred in or related to the performance of the WORK by the PRINCIPAL, and if the PRINCIPAL shall indemnify completely and shall hold harmless the OBLIGEE and all of its officers, agents and employees from any and all costs and damages which the OBLIGEE and all of its officers, agents and employees may sustain or suffer by reason of the failure of the PRINCIPAL to do so, and if the PRINCIPAL shall reimburse completely and shall pay to the OBLIGEE any and all costs and expenses which the OBLIGEE and all of its officers, agents or employees may incur by reason of any such default or failure of the PRINCIPAL, then this BOND shall be void; otherwise, this BOND shall remain in force and effect.

This BOND, is executed and delivered under and subject to the Act, to which reference hereby is made.

The PRINCIPAL and the SURETY agree that any alterations, changes and/or additions to the CONTRACT DOCUMENTS, and/or any alterations, changes and/or additions to the WORK to be performed in accordance with the CONTRACT DOCUMENTS, and/or any alterations, changes and/or additions to the CONTRACT , and/or any giving by the OBLIGEE of any extensions of time for the performance of the WORK in accordance with the CONTRACT DOCUMENTS, and/or any act of forbearance of either the PRINCIPAL or the OBLIGEE toward the other with respect to the CONTRACT DOCUMENTS, and/or the reduction of any percentage to be retained by the OBLIGEE as permitted by the CONTRACT DOCUMENTS, shall not release, in any manner whatsoever, the PRINCIPAL and the SURETY, or either of them, or their heirs, executors, administrators, successors and assigns, from liability and obligations under this BOND; and the SURETY, for value received, does waive notice of any such alterations, changes, additions, extensions of time, acts of forbearance and/or reduction of retained percentage.

IN WITNESS WHEREOF, the PRINCIPAL and the SURETY cause this BOND to be signed, sealed and delivered this _____ day of _____, 20____.

(INDIVIDUAL PRINCIPAL)

(Seal)

Witness:

(Signature of Individual)

Trading and Doing Business as:

(PARTNERSHIP PRINCIPAL)

Witness: _____ (Seal)

(Seal)

By: _____
(Partner)

Witness: _____
(Seal)

By: _____
(Partner)

Witness: _____
(Seal)

By: _____
(Partner)

(CORPORATION PRINCIPAL)

(Name of Corporation)

By: _____
(Vice) President

Attest:

(Assistant Secretary)

(Corporate Seal)

(OR, IF APPROPRIATE)

(Name of Corporation)

By: _____
(Authorized Representative)

Signed _____

(Title)

(CORPORATION SURETY)

(Name of Corporation)

By: _____
(Attorney-In-Fact)

Witness:

(Corporate Seal)

**** Attach an appropriate Power of Attorney, valid and in effect as of the date of this affidavit, evidencing the authority of the Attorney-In-Fact to act in behalf of the corporation.**

PAYMENT BOND

Know All Men by These Presents:

That We, _____ (CONTRACTOR) hereinafter called the PRINCIPAL, and _____ (SURETY) hereinafter called the SURETY, a corporation organized and existing under laws of the _____ of _____ are held and firmly bound unto _____, hereinafter called the OBLIGEE, as hereinafter set forth, in the full and just sum of _____ dollar (_____), lawful money of the United States of America, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Witnesseth That:

WHEREAS, the PRINCIPAL heretofore submitted to the OBLIGEE a certain PROPOSAL, dated _____, 20 __, to perform the WORK for the OBLIGEE, in connection with the _____ as set forth in the CONTRACT, DOCUMENTS; and _____ Public Works, City of Reading, Pennsylvania.

WHEREAS, the OBLIGEE is a "contracting body" under provisions of the Act of the General Assembly of the Commonwealth of Pennsylvania, approved by the Governor on December 20, 1967, known as and cited as the "Public Works Contractors" Bond Law of 1967", P L 869 (the Act"); and

WHEREAS, the Act, in section 3(a), requires that, before an award shall be made to the PRINCIPAL by the OBLIGEE in accordance with the PROPOSAL, the PRINCIPAL shall furnish this BOND to the OBLIGEE, with this BOND to become binding upon the award of a CONTRACT to the PRINCIPAL by the OBLIGEE in accordance with the PROPOSAL: and

WHEREAS, it also is a condition of the CONTRACT DOCUMENTS that this BOND shall be furnished by the PRINCIPAL to the OBLIGEE; and

WHEREAS, under the CONTRACTOR DOCUMENTS, it is provided, inter alia, that if the PRINCIPAL shall furnish this BOND to the OBLIGEE, and if the OBLIGEE shall make an award to the PRINCIPAL in accordance with the PROPOSAL then the PRINCIPAL and the OBLIGEE shall enter into a CONTRACT with respect to performance of the WORK, the form of which CONTRACT is set forth in the CONTRACT DOCUMENTS.

NOW, THEREFORE, the terms and conditions of this BOND are and shall be that if the PRINCIPAL and any SUBCONTRACTOR of the PRINCIPAL to whom any portion of the WORK shall be subcontracted, and if all assignees of the PRINCIPAL and of any such SUBCONTRACTOR, promptly shall pay or shall cause to be paid, in full all money which may be due any claimant supplying labor or materials in the prosecution and performance of the WORK in accordance with the CONTRACT DOCUMENTS, including any amendment, extension or addition to the CONTRACT DOCUMENTS, for material furnished or labor supplied or labor performed, then this BOND shall be void; otherwise, this BOND shall be and shall remain in force and effect.

This BOND, as provided by the Act, shall be solely for the protection of claimants supplying labor or materials to the PRINCIPAL or to any SUBCONTRACTOR of the PRINCIPAL in the prosecution of the WORK covered by the CONTRACT DOCUMENTS, including any amendment, extension or addition thereto. The term "claimant", where used herein and as required by the Act, shall mean any individual, firm, partnership, association or corporation. The phrase "labor or materials", when used herein and as required by the Act, shall include public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the site of the WORK covered by the CONTRACT. As required by the Act, the provisions of this BOND shall be applicable whether or not the material furnished or labor performed enters into and becomes a component part of the public building, public work or public improvement contemplated by the CONTRACT DOCUMENTS.

As provided and required by the Act, the PRINCIPAL and the SURETY agree that any claimant, who has performed labor or furnished material in the prosecution of the WORK in accordance with the CONTRACT DOCUMENTS, including any amendment, extension or addition to the CONTRACT DOCUMENTS, and who has not been paid therefore, in full, before the expiration of ninety (90) days after the last day on which such claimant performed the last of such labor or furnished the last of such materials for which payment is claimed, may institute an action upon this BOND, in the name of the claimant, in assumpsit, to recover any amount due the claimant for such labor or material, and may prosecute such action to final judgment and may have execution upon the judgment; provided, however, that:

(a) Any claimant who has a direct contractual relationship with any SUBCONTRACTOR of the PRINCIPAL, but has no contractual relationship, express or implied, with the PRINCIPAL, may institute an action upon this BOND only if such claimant first shall have given written notice, served in the manner provided in the Act, to the PRINCIPAL, within ninety (90) days from the date upon which such claimant performed in the last of the labor or furnished the last of the materials for which payment is claimed, stating, with substantial accuracy, the amount claimed and the name of the person for whom the WORK was performed or to whom the material was furnished; and

(b) No action upon this BOND shall be commenced after the expiration of one (1) year from the day upon which the last of the labor was performed or material was supplied, for the payment of which such action is instituted by the claimant; and

(c) Every action upon this BOND shall be instituted either in the appropriate court of the County where the WORK is to be performed or of such other County as Pennsylvania statutes shall provide, or in the United States District Court for the district in which the PROJECT, to which the CONTRACT relates, is situated, and not elsewhere.

This BOND is executed and delivered under and subject to the Act, to which reference hereby is made.

The PRINCIPAL and the SURETY agree that any alterations, changes and/or additions to the CONTRACT DOCUMENTS, and/or any alterations, changes and/or additions to the WORK to be performed in accordance with the CONTRACT DOCUMENTS, and/or any alterations, changes and/or additions to the CONTRACT, and/or any given by the OBLIGEE of any extensions of time for the performance of the WORK in accordance with the CONTRACT DOCUMENTS, and/or any act of forbearance of either the PRINCIPAL or the OBLIGEE toward the other with respect to the CONTRACT DOCUMENTS, and/or the reduction of any percentage to be retained by the OBLIGEE as permitted by the CONTRACT DOCUMENTS, shall not release, in any manner whatsoever, the PRINCIPAL and the SURETY, or either of them, or their heirs, executors, administrators, successors and assigns, from liability and obligations under this BOND; and the SURETY for value received, does waive notice of any such alterations, changes, additions, extensions of time, acts of forbearance and/or reduction of retained percentage.

If the PRINCIPAL is a foreign corporation (incorporated under the laws other than those of the Commonwealth of Pennsylvania) then further terms and conditions of this BOND are and shall be that the PRINCIPAL or the SURETY shall not be discharged from liability on this BOND, nor this BOND surrendered until such PRINCIPAL files with the OBLIGEE a certificate from the Pennsylvania Department of Revenue evidencing the payment in full of all bonus taxes, penalties and interest, and a certificate from the Bureau of Employment and Unemployment Compensation of the Pennsylvania Department of Labor and Industry, evidencing the payment of all unemployment compensation, contributions, penalties and interest due the Commonwealth from said PRINCIPAL or any foreign corporation,

SUBCONTRACTOR thereunder or for which liability has accrued but the time for payment has not arrived, all in accordance with provisions of the Act of June 10, 1947, P.L. 493, of the Commonwealth of Pennsylvania.

In Witness Whereof, the PRINCIPAL and the SURETY cause this BOND to be signed, sealed and delivered this day _____ of _____, 20 ____.

(INDIVIDUAL PRINCIPAL)

(Seal)

(Signature of Individual)

Witness:

Trading and Doing Business as:

(PARTNERSHIP PRINCIPAL)

(Seal)

(Name of Partnership)

Witness:

(Seal)

By: _____
(Partner)

Witness:

(Seal)

By: _____
(Partner)

Witness:

(Seal)

By: _____
(Partner)

Witness:

(Seal)

By: _____
(Partner)

(CORPORATION PRINCIPAL)

(Name of Corporation)

By: _____
(Vice) President

Attest:

(Assistant Secretary)

(Corporate Seal)

(OR, IF APPROPRIATE)

(Name of Corporation)

By: _____
(Authorized Representative)

Signed _____

(Title)

(CORPORATION SURETY)

(Name of Corporation)

By: _____
(Attorney-In-Fact)

Witness:

(Corporate Seal)

**** Attach an appropriate Power of Attorney, valid and in effect as of the date of this affidavit, evidencing the authority of the Attorney-In-Fact to act in behalf of the corporation.**

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____

_____ hereinafter called the PRINCIPAL, and
(CONTRACTOR)

_____ hereinafter called the SURETY, a corporation organized and existing
(SURETY)

under laws of the _____ of _____, are held and
firmly

bound unto _____, hereinafter called the OBLIGEE, as hereinafter set (OWNER)

forth, in the full and just sum of _____ Dollars (\$ _____),

lawful money of the United States of America, for the payment of which we bind ourselves, our heirs,
executors, administrators, successors and assigns, jointly and severally, firmly by these presents,

WITNESSETH THAT:

Whereas, the PRINCIPAL heretofore submitted to the OBLIGEE a certain PROPOSAL, dated _____,
20____ to perform the WORK for the OBLIGEE, in connection with the construction of _____
_____ as set forth in the

CONTRACT
DOCUMENTS as prepared by the CITY OF READING.

Now, therefore, the condition of this BOND shall be such that: If the PRINCIPAL shall remedy, without
cost to the OBLIGEE, all defects which may develop during the period of one (1) year from the date of
completion by the PRINCIPAL and final acceptance of the OBLIGEE of the WORK performed in
accordance with the CONTRACT DOCUMENTS, which defects, in the sole judgment of the OBLIGEE,
shall be caused by or shall result from defective or inferior materials or workmanship, and if the
PRINCIPAL shall satisfy all claims and demands arising from or related to such defects or growing out of
such defects. and if the PRINCIPAL shall indemnify completely and shall save harmless the OBLIGEE
from any and all costs and damages which the OBLIGEE may sustain or suffer by reason of the failure so
to do; and if the PRINCIPAL shall reimburse completely and shall pay to the OBLIGEE any and all costs
and expenses which the OBLIGEE may incur by reason of any such default or failure of the PRINCIPAL,
then this BOND shall be void; otherwise, this BOND shall be and shall remain in full force and effect.

The PRINCIPAL and the SURETY agree that any alterations, changes and/or additions to the
CONTRACT DOCUMENTS, and/or any alterations, changes and/or additions to the WORK to be
performed in accordance with the CONTRACT DOCUMENTS, and/or any alterations, changes and/or
additions to the CONTRACT, and/or any giving by the OBLIGEE of any extensions of time for the
performance of the WORK in accordance with the CONTRACT DOCUMENTS, and/or any act of
forbearance of either the PRINCIPAL or the OBLIGEE toward the other with respect to the CONTRACT
DOCUMENTS, and/or the reduction of any percentage to be retained by the OBLIGEE as permitted by
the CONTRACT DOCUMENTS, shall not release, in any manner whatsoever, the PRINCIPAL and the
SURETY, or either of them, or their heirs, executors, administrators, successors and assigns from liability
and obligations under this BOND; and the SURETY for value received, does waive notice of any such
alterations, changes, additions, extensions of time, acts of forbearance and/or reduction of retained
percentage.

In Witness Whereof, the PRINCIPAL and the SURETY cause this BOND to be signed, sealed and
delivered this _____ day of _____, 20_____.

(INDIVIDUAL PRINCIPAL)

(Signature of Individual) (Seal)

Witness:

Trading and Doing Business as:

(PARTNERSHIP PRINCIPAL)

(Name of Partnership) (Seal)

Witness:

(Seal)

By: _____
(Partner)

Witness:

(Seal)

By: _____
(Partner)

Witness:

(Seal)

By: _____
(Partner)

Witness:

(Seal)

By: _____
(Partner)

(CORPORATION PRINCIPAL)

(Name of Corporation)

By: _____
(Vice) President

Attest:

(Assistant Secretary)

(Corporate Seal)

(OR, IF APPROPRIATE)

(Name of Corporation)

By: _____
(Authorized Representative)

(CORPORATION SURETY)

(Name of Corporation)

By: _____
(Attorney-In-Fact)

Witness:

(Corporate Seal)

**** Attach an appropriate Power of Attorney, valid and in effect as of the date of this affidavit, evidencing the authority of the Attorney-In-Fact to act in behalf of the corporation.**

STATEMENT ACCEPTING PROVISIONS OF WORKERS' COMPENSATION ACT

STATE OF _____

ss.

COUNTY OF _____

The undersigned contractor has accepted the provisions of the Workers' Compensation Act of Pennsylvania, with all supplements, and has insured liability thereunder in accordance with the terms thereof with the insurance company whose signature is attached hereto.

For Individual

_____(SEAL)

FOR CORPORATION

(Name of Corporation)

By:_____
(Official Title)

Attest:_____
(Secretary or Asst. Secretary)

FOR PARTNERSHIP

(Name of Partnership)

By:_____(SEAL)

_____(SEAL)
(Partners)

_____(Name of Insurance Company)

By:_____
(Attorney-In-Fact)

STIPULATION AGAINST LIENS

WHEREAS, _____, hereinafter called the CONTRACTOR, has entered into a CONTRACT, dated _____, 20____, with _____ hereinafter called the CITY, to provide materials and perform labor necessary for the manufacture and furnishing of the: as set forth in the CONTRACT DOCUMENTS as prepared by the City of Reading.

NOW, THEREFORE, it is hereby stipulated and agreed by and between the said parties, as part of the said CONTRACT, and for the consideration therein set forth, that neither the undersigned CONTRACTOR, any SUBCONTRACTOR or material man, nor any other person furnishing labor or materials to the said CONTRACTOR under this CONTRACT shall file a lien, commonly called a mechanic's lien, for WORK done or materials furnished for the above manufacture.

This stipulation is made and shall be filed with the Berks County Prothonotary within ten (10) days after execution, in accordance with the requirements of Section 1402 of the Mechanics Lien Law of 1963 of the Commonwealth of Pennsylvania in such case provided.

IN WITNESS WHEREOF, the parties hereto have caused the signature of their proper officers to be affixed thereto on this _____ day of _____ 20____.

(SEAL)

(CITY OF READING)

BY: _____

TITLE: _____

ATTEST:

BY: _____

TITLE: _____

(SEAL)

(CONTRACTOR)

BY: _____

TITLE: _____

ATTEST:

BY: _____

TITLE: _____

INDEMNITY AGREEMENT & HOLD HARMLESS

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned has entered into a contract with the CITY OF READING, dated _____, 20 __, providing for the _____ City of Reading, Pennsylvania.

NOW, THEREFORE, in consideration of the award of said contract to the undersigned, _____, as well as in further consideration of the sum of ONE DOLLAR (\$1.00) in hand paid to the said _____ by the City of Reading, receipt whereof is hereby acknowledged, the said _____ agrees to indemnify and save harmless the CITY OF READING, its officers, agents, servants, and employees against any and all loss, damage, costs and expenses which the said CITY may hereafter suffer, incur, be put to or pay by reason of any bodily injury (including death) or damage to property arising out of any act or omission in performance of the work undertaken under the aforesaid contract.

EXECUTED this ____ day of _____, 20 __.

By: _____

Title: _____

ATTEST:

(Title)

NOTICE TO PROCEED

TO:

Project _____

Contract No. _____

Amount of Contract _____

You are hereby notified to commence work on the referenced contract on or before _____, 20____, and shall fully complete all of the work of said contract within _____ consecutive calendar days thereafter. Your completion date is therefore _____, 20____.

The contract provides for an assessment of the sum of \$ _____ as liquidated damages for each consecutive calendar day after the above established contract completion date that the work remains incomplete.

Dated this _____ day of _____, 20____.

By _____

Title _____

ACCEPTANCE OF NOTICE

Receipt of foregoing Notice to Proceed is hereby acknowledged

By _____

this _____ day of _____, 20____.

By _____

Title _____

DAVIS-BACON LABOR & INDUSTRY WAGE RATES

TO: **ALL CONTRACTORS**
FROM: City of Reading Community Development
RE: Davis Bacon Prevailing Wage Act

Because of the use of federal funding, below is a checklist of items that contractors are required to properly complete and submit in order for the CD Office to process the first payment request:

- IRS Number
- Certified Payrolls
- Certificate Appointing Officer or Employee To Supervise Payment of Employees
- Contractor or Subcontractor Certification
- Attachments I and II
- Affirmative Action Plan (for contracts over \$100,000)
- Section 3 Certification (for contracts over \$100,000)
- Section 3 Statement
- Equal Employment / Section III Questionnaire
- Construction Start Date
- Fringe Benefit Plan
- Workforce Roster
- Apprenticeship Agreements (If Apprentice's work on project)

It is the **GENERAL CONTRACTOR'S** responsibility to explain, obtain and review the above documentation from their subcontractors. The Community Development Office will accept only documentation forwarded by the General Contractor.

NOTICE

THE DAVIS-BACON ACT PREVAILING WAGE RATES SPECIFIED ON THE FOLLOWING PAGES ARE FOR *ESTIMATING* PURPOSES ONLY AND ARE **SUBJECT TO CHANGE**.

THE RATES TO BE USED AND ENFORCED FOR THE PROJECT WILL BE MADE AVAILABLE BY THE CITY PURCHASING COORDINATOR VIA CONTRACT ADDENDUM TEN DAYS PRIOR TO THE BID OPENING DATE.

Please note the following:

The Cement Mason classification is to be applied for the worker's that perform cement finishing work.

The Lineman classification is to be applied for the worker's that perform the electrical work (e.g. install conduits, cables, wires, and related equipment).

"General Decision Number: PA20210006 01/22/2021

Superseded General Decision Number: PA20200006

State: Pennsylvania

Construction Types: Heavy and Highway

Counties: Adams, Berks, Bradford, Carbon, Columbia, Cumberland, Dauphin, Juniata, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Lycoming, Monroe, Montour, Northampton, Northumberland, Perry, Pike, Schuylkill, Snyder, Sullivan, Susquehanna, Tioga, Union, Wayne, Wyoming and York Counties in Pennsylvania.

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS (Excluding Sewer Grouting Projects and Excluding Sewage and Water Treatment Plant Projects)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/01/2021
1	01/15/2021
2	01/22/2021

BOIL0013-003 03/01/2018

	Rates	Fringes
BOILERMAKER.....	\$ 45.89	33.39

CARP0167-006 05/01/2019

BERKS, CARBON and LANCASTER

	Rates	Fringes
CARPENTER.....	\$ 32.07	15.49

CARP0167-007 05/01/2020

LEHIGH and NORTHAMPTON COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 35.34	26.49

CARP0219-007 06/08/2020

CARBON (Townships: East Penn, Lower Towamensing, Mahoning, Franklin, Towamensing, Penn Forest. Everything south of Route 903 and east to the Kidder Township Line. Boroughs: Hauto, Nesquehoning, Lansford, Summit Hill, Jim Thorpe, Weissport, Bownmanstown, Palmerton, Lehigh, and Parryville) , LEHIGH AND NORTHAMPTON COUNTIES

	Rates	Fringes
MILLWRIGHT.....	\$ 44.00	31.43

CARP0219-008 05/01/2019

BERKS and LANCASTER COUNTIES

	Rates	Fringes
MILLWRIGHT.....	\$ 39.14	19.68

CARP0441-005 05/01/2020

BERKS, CARBON, LANCASTER, LEHIGH and NORTHAMPTON COUNTIES

	Rates	Fringes
FILEDRIVERMAN.....	\$ 43.70	37.22

CARP0443-002 05/01/2019

ADAMS, BRADFORD, CARBON (Banks, Lausanne, Lehigh, Packer, Kidder Twps., and part of Penn Forest Township north of Route 903) COLUMBIA, CUMBERLAND, DAUPHIN, JUNIATA, LANCASTER, LEBANON, LUZERNE (lower part of) MONROE, MONTGOMERY, NORTHAMPTON, PERRY, PIKE, SCHUYLKILL, SNYDER, SULLIVAN, SUSQUEHANNA, TIOGA, UNION, WAYNE, WYOMING, YORK (New Cumberland Army Depot and Harrisburg State Airport) COUNTIES

	Rates	Fringes
MILLWRIGHT.....	\$ 35.18	18.82

CARP2274-003 05/01/2020

Adams, Bradford, Columbia, Cumberland, Dauphin, Juniata, Lackawanna, Lebanon, Luzerne, Lycoming, Monroe, Montour, Northumberland, Perry, Pike, Schuylkill, Snyder, Sullivan, Susquehanna, Tioga, Union, Wayne, Wyoming and York

	Rates	Fringes
CARPENTER.....	\$ 32.22	17.19
FILEDRIVERMAN.....	\$ 32.22	17.19

ELEC0126-001 06/01/2020

ADAMS, BERKS, CUMBERLAND, DAUPHIN, JUNIATA, LANCASTER, LEBANON, LEHIGH, NORTHAMPTON, PERRY AND YORK COUNTIES

	Rates	Fringes
Line Construction:		
Cable Splicer.....	\$ 47.42	31.25%+11.75
Groundman.....	\$ 28.45	31.25%+11.75
Lineman.....	\$ 47.42	31.25%+11.75
Truck Driver.....	\$ 30.82	31.25%+11.75
Winch Truck Operator.....	\$ 33.20	31.25%+11.75

* ELEC1319-001 01/01/2021

BRADFORD, CARBON, COLUMBIA, LACKAWANNA, LUZERNE, LYCOMING,
MONROE, MONTOUR, NORTHUMBERLAND, PIKE, SCHUYLKILL, SNYDER,
SULLIVAN, SUSQUEHANNA, TIOGA, UNION, WAYNE, AND WYOMING COUNTIES

	Rates	Fringes
Line Construction:		
Equipment Operator.....	\$ 59.10	21.28
Groundmen.....	\$ 36.64	12.65
Linemen.....	\$ 59.10	25.28
Truck Driver.....	\$ 38.42	12.78

* ENGI0542-004 05/01/2020

	Rates	Fringes
Power equipment operators: (HIGHWAY CONSTRUCTION AND WATER LINES CONSTRUCTION (OFF PLANT SITE))		
GROUP 1.....	\$ 36.02	26.78
GROUP 1a.....	\$ 38.27	27.46
GROUP 2.....	\$ 34.84	26.44
GROUP 3.....	\$ 34.14	26.24
GROUP 4.....	\$ 33.69	26.11
GROUP 5.....	\$ 33.17	25.97
GROUP 6.....	\$ 36.25	26.85
GROUP 6a.....	\$ 38.50	27.51

BOOM LENGTH PAY:

On all machines with booms, jibs, masts and leads 100 ft. and over, twenty five cents (\$0.25) per hour additional will be paid for each increment of 25 ft. over 100 ft. On machines with booms (including jibs, masts and leads, etc.), 200 ft. and over, two (2) Operating Engineers shall be required.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 - Pile drivers, all types of cranes, all types of backhoes, draglines, keystones, all types of shovels, derricks, trench shovels, trenching machines, paver (blacktop and concrete), gradalls, all front end loaders, tandem scrapers, pippin types backhoes, boat captains, batch plant with mixer, drill self contained (drill-master type), CMI Autograde, milling machine, vemeer saw, conveyor loader (euclid type) scraper and tournapulls, bulldozers and tractors, concrete pumps, motor patrols, mechanic welders, log skidder, side boom, bobcat type (with attachments), boring machines including directional boring machines, chipper with boom, hydro ax, machines similar to the above including remote control equipment.

GROUP 1a: Crawler backhoes and Crawler gradalls over one cubic yard factory rating; Hydraulic backhoes over one cubic yard factory rating; All types of cranes 15 ton and over factory rating; Single person operation truck cranes 15 ton and over factory rating; Cherry picker type machinery and equipment 15 ton and over factory rating; Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

GROUP 2 - Spreaders, asphalt plant engineers, rollers (high grade finishing), machine similar to above, including remote control equipment, and forklifts 20ft and over.

GROUP 3 - Welding machine, well points, compressors, pump heaters, farm tractors, form line graders, ditch witch type trencher, road finishing machines, concrete breaking

machines, rollers, miscellaneous equipment operator, seaman pulverizing mixer, power broom, seeding spreader, tireman - (for power equipment) conveyors, loaders other than EUC type, conveyors, driller second class, machines similar to the above including remote control equipment, and forklift under 20 ft.

GROUP 4 - Fireman and grease truck

GROUP 5 - Oilers and deck hands

GROUP 6 - All machines with booms (including jibs, masts, leads, etc.) 100 ft. and over.

GROUP 6a: All machines with Booms (including Jibs, Masts, Leads, etc.) 100 feet 15 ton and over factory rating; Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

TOXIC/HAZZARDOUS WAST REMOVAL

Add 20 per cent to basic hourly rate for all classifications

* ENGI0542-022 05/01/2020

	Rates	Fringes
Power equipment operators: (HEAVY CONSTRUCTION:)		
GROUP 1.....	\$ 36.90	27.06+A
GROUP 1a.....	\$ 39.14	27.73+A
GROUP 2.....	\$ 36.61	26.98+A
GROUP 2a.....	\$ 38.87	27.64+A
GROUP 3.....	\$ 33.69	26.12+A
GROUP 4.....	\$ 32.55	25.79+A
GROUP 5.....	\$ 32.11	25.65+A
GROUP 6.....	\$ 31.23	25.39+A
HEAVY CONSTRUCTION:		

FOOTNOTE:

A: PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, the employee works the day before and the day after the holiday.

BOOM LENGTH PAY:

On all machines with booms, jibs, masts and leads 100 ft. from ground up, fifty (\$0.50) per hour additional will be paid for each increment of 25 ft. over 100 ft. On cranes with booms (including jibs, masts and leads, etc.) 200 ft. and over, two (2) operators shall be required, no Oilers will be required, with seventy five (\$0.75) in increments of 25 ft.

TOXIC/HAZZARDOUS WASTE REMOVAL

Add 20 per cent to basic hourly rate for all classifications

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Machines doing hook work, any machine handling machinery, cable spinning machines, helicopters, machines similar to the above, including remote control equipment, all types of cranes, cableways, and draglines.

GROUP 1a: Machines doing hook work; Machines handling machinery; All types of cranes 15 ton and over factory rating; Cable ways; Draglines 15 ton and over factory rating; High Rail/Burro Crane 15 ton and over factory rating; Rail Loader (Winch Boom Type) 15 ton and over

factory rating; Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

GROUP 2: Backhoes, keystones, shovels, derricks, trench shovels, trenching machines, hoist with two towers, pavers 21E and over, overhead cranes, building hoists (double drum) gradalls, mucking machines in tunnels, front end loaders, tandem scrapers, pippin type backhoes, boat captains, batch plant operators concrete drills, self-contained rotary drills, fork lifts, 20ft, lift and over, scrapers, tournapulls, spreaders, bulldozers and tractors, rollers (high grade finishing), mechanic-welder, motor patrols, concrete pumps, grease truck, bob cat type (all attachments), boring machines including directional boring machines, hydro ax, side boom, vermeer saw, chipper with boom, machines similar to the above including remote control equipment

GROUP 2a: Crawler backhoes and crawler gradalls over one cubic yard factory rating; Hydraulic backhoes over one cubic yard factory rating; Equipment 15 ton and over factory rating; Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

GROUP 3: Conveyors, building hoist (single drum), high or low pressure boilers, drill operators, well drillers, asphalt plant engineers, ditch witch type trencher, second class driller, forklift truck under 20ft. lift, stump grinder, tireman (for power equipment), machines similar to above including remote control equipment.

GROUP 4: Welding machines, well points, compressors, pumps, heaters, farm tractors, form line graders, road finishing machines, concrete breaking machines, rollers, seaman pulverizing mixer, power boom, seeding spreader, chipper without boom, machines similar to the above including remote control equipment.

GROUP 5: Fireman.

GROUP 6: Oilers and deck hands (personnel boats).

IRON0404-006 07/01/2020

ADAMS, BERKS, CUMBERLAND, DAUPHIN, JUANITA, LANCASTER, LEBANON, LEHIGH, LYCOMING, MONTGOMERY, NORTHAMPTON, NORTHUMBERLAND, PERRY, SCHUYLKILL, SNYDER, UNION and YORK COUNTIES

	Rates	Fringes
Ironworkers:.....	\$ 33.76	30.13

IRON0404-017 07/01/2020

BRADFORD, CARBON, COLUMBIA, LACKAWANNA, LUZERNE, MONROE, PIKE, SULLIVAN, TIOGA, SUSQUEHANNA, WAYNE and WYOMING COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 33.76	30.13

LABO0158-001 05/01/2020

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 22.41	17.69
GROUP 2.....	\$ 29.03	17.69

GROUP 3.....	\$ 26.02	17.69
GROUP 4.....	\$ 26.37	17.69
GROUP 5.....	\$ 27.04	17.69
GROUP 6.....	\$ 26.46	17.69
GROUP 7.....	\$ 26.75	17.69
GROUP 8.....	\$ 27.23	17.69

LABORERS CLASSIFICATIONS

GROUP 1: Flag person

GROUP 2: Hazardous/Toxic/Asbestos Waste Handler, Lead Paint Handler

GROUP 3: Asphalt tamper, concrete pitman, puddlers, highway guide rail right of way and property fence slab reinforcement placers, Laborers, landscaper, seeders, planters, magazine tenders, laser beam men for pipe laying and paving machines,, railroad trackman, signalman, asphalt rakers, lute or screed man, pneumatic and electric tool operators, jackhammers, paving breakers, concrete saws, whacker vibrator, chainsaw, highway concrete block layers, sheet hammer, pipe layers, Walk Behind Rollers, Walk Behind Trencher

GROUP 4: Caisson-open air below 8 feet, cofferdam open air below 8 feet where excavations for circular caissons and cofferdams 8 ft and below level of natural grade adjacent to starting point, form setters (road) wagon drill diamond point drill, gunite nozzle operators, walk behind rollers and concrete rubbers, blaster.

GROUP 5: Form Setter, Reinforced Steel Placer, Bonding Aligning and Securing and Burning and welding in Conjunction wth Rebar, and Concrete Surfacers.

FREE AIR TUNNELS AND ROCK SHAFTS

GROUP 6: Outside labers in conjunction with tunnels and rock shafts

GROUP 7: Chuck tenders, muckers, nippers, miners, inside laborers

GROUP 8: Miners, drillers, blasters, pneumatic shield operators, lining, spotting and timber workmen, rebar steel placer, bonding and securing, welders, and concrete surfacers

PAIN0021-026 05/01/2018

ADAMS, CUMBERLAND, DAUPHIN, LANCASTER, PERRY, AND YORK COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 31.80	14.23
Brush.....	\$ 23.92	14.23
Spray, Sandblast.....	\$ 26.05	14.23

PAIN0057-021 06/01/2020

JUNIATA COUNTY

	Rates	Fringes
Painters:		
Bridge, Towers.....	\$ 35.72	20.72
Commercial Brush & Roller...	\$ 28.80	20.72
Industrial Brush & Roller...	\$ 33.55	20.72
Spray.....	\$ 28.80	20.72

PAIN1021-001 05/01/2012

BERKS, CARBON, LEBANON, LEHIGH, NORTHAMPTON, AND MONROE COUNTIES

	Rates	Fringes
Painters:		
Bridge; Brush, Roller.....	\$ 30.85	14.80
Bridge; Spray.....	\$ 31.85	14.80
Brush and Roller.....	\$ 26.55	14.80
Spray and Sandblast.....	\$ 27.55	14.80

PAIN1021-002 05/01/2009

BRADFORD, COLUMBIA, LACKWANNA, LUZERNE, LYCOMING, MONTGOMERY,
NORTHUMBERLAND, PIKE, SCHUYLKILL, SNYDER, SULLIVAN,
SUSQUEHANNA, TIOGA, UNION, WAYNE, WYOMING COUNTIES

	Rates	Fringes
Painters:		
Bridge; Brush, Roller.....	\$ 25.60	12.05
Bridge; Spray.....	\$ 26.60	12.05
Brush and roller.....	\$ 22.75	12.05
Spray, Sandblast.....	\$ 23.75	12.05

PLAS0592-004 06/01/2020

MONROE COUNTY; (EXCEPT TOBYHANNA DEPOT)

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 34.78	13.30

PLAS0592-005 06/01/2020

COLUMBIA COUNTY

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 34.78	13.30

PLAS0592-017 05/01/2020

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER BERKS (Northeastern part lying North of a line starting from the Southern boundary line of Lehigh County continuing through Huffs Church, Frederickville, Dryville, Lyon Station, Kutztown, Krumsville, and Stoney run in Berks County to the Lehigh County line), CARBON, LEHIGH, NORTHAMPTON (Northwest part including the towns of Walnutport, Bath, and Northampton) COUNTIES.....	\$ 31.60	23.18

PLAS0592-018 05/01/2020

	Rates	Fringes
Cement Mason/Concrete Finisher Adams, Lancaster and York Counties.....	\$ 30.80	21.45
PLASTERER		

Adams, Berks (Portions
of), Lancaster, and
Lebanon Counties.....\$ 27.48 20.75

FLAS9592-002 05/01/2014

MONROE COUNTY (TOBYHANNA ARMY DEPOT)

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 31.23	10.00

TEAM0229-003 05/01/2018

	Rates	Fringes
TRUCK DRIVER (ADAMS, BERKS, CARBON, COLUMBIA, CUMBERLAND, DAUPHIN, JUNIATA, LACKAWANA, LANCASTER, LEBANON, LEHIGH, LUZERNE, LYCOMING, MONROE, MONTGOMERY, NORTHAMPTON, NORTHUMBERLAND, PERRY, PIKE, SCHUYLKILL, SNYDER, SULLIVAN, SUSQUEHANNA, UNION, WAYNE, WYOMING, AND YORK COUNTIES)		
GROUP 1.....	\$ 35.32	0.00
GROUP 2.....	\$ 35.39	0.00
GROUP 3.....	\$ 35.88	0.00
Truck drivers: (BRADFORD AND TIOGA COUNTIES)		
GROUP 1.....	\$ 22.21	13.11
GROUP 2.....	\$ 22.28	13.11
GROUP 3.....	\$ 22.77	13.11

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Flat Bed Truck (Single-Axle), Dump Trucks (Under 10 Yds Single Axle), Stake Body Truck (Single Axle), Dumpster (Single Axle)

GROUP 2: Dump Truck (Over 10 Yds), Asphalt Distributors, Transit Mix (Under 5 Yds), Transit Mix (Over 5 Yds.), Flat or Stake Body (Tandem), Fuel Truck A-Frame/Winch Trucks, Dry Batch Truck, Truck Mounted Sweeper and Vac Trucks, Buses, Dumpster (Tandem)

GROUP 3: Euclid-Type, Off Highway Equipment-Back or Double Bottom Dump Trucks (Over 20 Tons), Straddle Trucks, Pusher, Articulate Dumped Trucks, Low Boy Trailers, Semi Trailers

Water Tank, Sprinkler Trucks, Winch Trucks and Fuel Trucks shall be governed by the appropriate classification as listed above.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other

health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in

the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

U.S. Department of Labor
Employment Standards Administration
Wage and Hour Division
Washington, D.C. 20210

GENERAL WAGE DETERMINATIONS ISSUED UNDER THE DAVIS-BACON AND RELATED ACTS

DAVIS-BACON WAGE DETERMINATION REFERENCE MATERIAL

Section A: Introduction

This section includes a short discussion of the Davis-Bacon and related Acts and their requirements, and a brief explanation of wage determinations and their use.

Section B: How to Interpret General Wage Determinations

This section includes a discussion of how to interpret the information contained in Davis-Bacon General Wage Determinations.

Section C: Questions and Answers on the use of Davis-Bacon Wage Determinations

This section includes the answers to several of the most frequently asked questions about administration of the Davis-Bacon and related Acts.

Section A

INTRODUCTION

THE DAVIS-BACON AND RELATED ACTS (DBRA)

The Davis-Bacon Act as amended, requires that each contract over \$2,000 to which the United States or the District of Columbia is a party for the construction, alteration, or repair of public buildings or public works shall contain a clause setting forth the minimum wages to be paid to various classes of laborers and mechanics employed under the contract. Under the provisions of the Act, contractors or their subcontractors are to pay workers employed directly upon the site of the work no less than the locally prevailing wages and fringe benefits paid on projects of a similar character. The Davis-Bacon Act directs the Secretary of Labor to determine such local prevailing wage rates.

In addition to the Davis-Bacon Act itself, Congress has added prevailing wage provisions to approximately 60 statutes which assist construction projects through grants, loans, loan guarantees, and insurance. These "related Acts" involve construction in such areas as transportation, housing, air and water pollution reduction, and health. If a construction project is funded or assisted under more than one Federal statute, the Davis-Bacon prevailing wage provisions may apply to the project if any of the applicable statutes require payment of Davis-Bacon wage rates.

The geographic scope of the Davis-Bacon Act is limited, by its terms, to the 50 States and the District of Columbia. By the same token, the scope of each of the related Acts is determined by the terms of the particular statute under which the Federal assistance is provided. For example, Davis-Bacon prevailing wage provisions would apply to a construction contract located in Guam or the Virgin Islands funded under the Housing and Community Development Act of 1974, even though the Davis-Bacon Act itself does not apply to Federal construction contracts to be performed outside the 50 States and the District of Columbia.

WAGE DETERMINATIONS

A "wage determination" is the listing of wage rates and fringe benefit rates for each classification of laborers and mechanics which the Administrator of the Wage and Hour Division of the U.S. Department of Labor has determined to be prevailing in a given area for a particular type of construction (e.g., building, heavy, highway, or residential).

The Wage and Hour Division issues two types of wage determinations: general determinations, also known as area determinations, and project determinations. The term "wage determination" is defined as including not only the original decision but any subsequent decisions modifying, superseding, correcting, or otherwise changing the rates and scope of the original decision.

General wage determinations reflects those rates determined by the Division to be prevailing in a specific geographic area for the type of construction described. General wage decisions and modifications and supersedeas decisions thereto, contain no expiration dates and are effective from their date of notice in the Federal Register, or on the date written notice is received by the agency, whichever is earlier. If a contracting agency has a proposed construction project to which a general determination would be applicable, the published determination may be used by the contracting agency without consulting the Department of Labor, provided that questions concerning its use shall be referred to the Department of Labor.

Project wage determinations are issued at the specific request of a contracting agency; each is applicable to the named project only; and expires 180 calendar days from the date of issuance unless an extension of the expiration date is requested by the agency and approved by the Wage and Hour Division. If such a determination is not used in the period of its effectiveness, it is void. Project determinations are issued in response to contracting agencies submitting to the Wage and Hour Division a Standard Form 308 requesting a wage determination.

Modifications of general and project wage determinations are issued to update data in the original determination. Where a contract will be entered pursuant to competitive bidding procedures, a modification, notice of which is published in the Federal Register less than 10 days before the opening of bids shall be effective unless the agency finds that there is not a reasonable time still available before bid opening to notify bidders of the modification and a report of the finding is inserted in the contract file. (For projects assisted under the National Housing Act, and for projects to receive housing assistance payments under section 8 of the U.S. Housing Act of 1937, dates other than bid opening apply. See Regulations, 29 CFR Part 1, section 1.6). If the contracting officer chooses to disregard a modification, a report of this action shall be inserted in the contract file and made available to the Wage and Hour Division upon request.

If a contract has not been awarded within 90 days after bid opening, modifications prior to award to a general wage determination in the contract shall be effective with respect to that contract unless the agency requests and obtains an extension of the 90-day period from the Wage and Hour Division.

Supersedeas Wage Determinations are issued annually to replace general decisions issued in the previous edition of the publication entitled General Wage Determinations Issued Under the Davis-Bacon and Related Acts. Supersedeas project wage determinations may also be issued. Supersedeas decisions affecting determinations are effective under the same circumstances as "modifications." Whereas a modification to a wage determination may make changes in only selected provisions of the wage determination, a supersedeas determination replaces the entire existing wage decision.

Notice is published in the Federal Register each week (usually on Friday) to advise the public of the publication of general wage determinations, modifications, supersedeas actions, withdrawal actions, and corrections affecting such wage determinations.

Extensions of Wage Determinations

When a general wage determination has not been awarded within 90 days after bid opening, the head of the contracting/assisting agency may request an extension of the 90 day period from the Wage and Hour Administrator. When, due to unavoidable circumstances, a project wage determination expires before award but after bid opening, the head of the contracting/assisting agency may request an extension of the expiration date of the project wage determination in the bid specifications instead of issuing a new wage determination. (For projects assisted under the National Housing Act, and for projects to receive housing assistance payment under section 8 of the U.S. Housing Act of 1937, dates other than bid opening apply. See Regulations 29 CFR, Part 1, section 1.6.)

Extension requests should be supported by a written finding including a brief statement of the factual support, that extension of the expiration date of the determination is necessary and proper in the public interest to prevent injustice or undue hardship or to avoid serious impairment in the conduct of Government business.

The Administrator will either grant or deny the request for an extension after consideration of all the circumstances, including an examination to determine if the previously issued rates remain prevailing. If a request for the extension of a project wage determination is denied, a new wage determination will be issued to replace an expired project wage determination.

Section B

How to Interpret General Wage Determinations

A. WAGE DETERMINATIONS ARE STRUCTURED ACCORDING TO THE FOLLOWING FORMAT:

Each wage determination begins with a cover sheet that defines its applicability. Included on this sheet are:

The decision number.

The number of the decision superseded, if applicable.

State(s) covered.

Type of construction (building, heavy, highway, and/or residential).

County(ies) or city(ies) covered.

Description of the construction to which the wage determination applies and/or construction excluded from its application.

Record of modifications, including the initial publication date, modification numbers and dates.

In the body of each wage determination is the listing of classifications (laborers and mechanics) and accompanying basic hourly wage rates and fringe benefit rates that have been determined to be prevailing for the specified type(s) of construction in the geographic area(s) covered by the wage determination. Classification listings may also include classification groupings, fringe benefit footnotes, descriptions of the geographic areas to which subclassifications and different wage rates apply, and/or certain classification definitions. (See below for how to know the source of a rate.)

In wage determination modifications, an asterisk ("*") is used to indicate that the item marked is changed by that modification.

The wage determination appeals process is explained at the end of the wage determination. The explanation includes a description of the criteria for appeal and where to file the appeal.

The last page of each wage determination ends with "END OF DECISION" centered above the last page number for the determination. Users can refer to the page number at the bottom of that page to check back to be sure that they have all the preceding pages of the determination.

B. HOW TO FIND THE WAGE RATE FOR A PARTICULAR CLASSIFICATION AND UNDERSTAND THE BASIS FOR THE WAGE RATE:

Review the wage determination in light of the following information:

1. The body of each wage determination lists the classifications and wage rates that have been found prevailing for the cited type(s) of construction in the area covered by the wage determination.

The classifications are listed in alphabetical order of "identifiers" that indicate whether particular rates are union or non-union rates.

Many wage determinations contain only non-union wage rates, some contain only union-negotiated wage rates, and others contain both union and non-union wage rates that have been found prevailing in the area for the type of construction covered by the wage determination.

2. Above each classification (or group of classifications) listed, an alphanumeric "identifier" and date provide information about the source of the classification(s) and wage rate(s) listed for it. (SU means the rates listed under that identifier were derived from survey data and are not union rates, although the survey data on which they are based may include both union and non-union data.)

a. The identifier is SUAR0037A. SU indicates rates that are not union rates; AR = Arkansas; 0037A is a sequential number and character used in producing the wage determination. Dates before 1993 that appear with such "SU" identifiers were generated in producing the wage determinations and are not meaningful to users. However, a 1993 or later date will indicate that the classification(s) and wage rate(s) under that identifier were issued in the general wage determination on that date and reflect the results of a survey.

b. Any identifier beginning with characters other than SU is used where union classification(s) and wage rate(s) have been found prevailing.

In each such identifier, the first four letters indicate the international union (see listing, below) for the local union that negotiated the wage rates listed under that identifier. Then, there is a four-digit number that indicates the local union number. For example, the identifier is ELEV0101A. ELEV = Elevator Constructors; 0101 = the local union number (district council number where applicable); and "A" = a character used internally in processing the wage determination. The date shown is the effective date of the most current negotiated rate entered into the automated system that generates general wage determinations.

Special identifiers are necessary for two trades because the same local union number(s) is accompanied by different wage rates in different states. Bricklayers local union numbers are not unique nationwide, but are unique within each State. Similarly, Sprinkler Fitters Local Union No. 669 has negotiated different wage rates in each State within its territorial jurisdiction. Therefore, the identifiers for the Bricklayers unions are in the format "BR + state abbreviation," (referenced below as BRXX), and the identifier "SF + state abbreviation" is used for Sprinkler Fitter Local No. 669's rates.

It is common for many local unions to negotiate wage rates for more than one classification. Where this is done, all the classifications for which that union's wage rates are determined to be prevailing will appear under the identifier for that union.

For example, the same union may negotiate wage and fringe benefits for painters and glaziers. In such a case, the wage rate for the glazier, as well as that for the painter will be found under a classifier beginning with "PAIN." Similarly, users may need to look under an identifier beginning with "CARP" to find not only rates for carpenters, but also those for millwrights, piledrivers and (marine) divers.

3. Following are the identifier codes used to reference the various craft unions. Examples of classifications for which their local unions commonly negotiate wage and fringe benefit rates are shown in parentheses.

ASBE = International Association of Heat and Frost Insulators and Asbestos Workers

BOIL = International Brotherhood of Boiler Makers, Iron Shipbuilders, Blacksmiths, Forgers and Helpers

BRXX = International Union of Bricklayers, and Allied Craftsmen

(bricklayers, cement masons, stone masons, tile, marble and terrazzo workers)

CARP = United Brotherhood of Carpenters and Joiners of America

(carpenter, millwright, piledrivemen, soft floor layers, divers)

ELEC = International Brotherhood of Electrical Workers

(electricians, communication systems installers, and other low voltage specialty workers)

ELEV = International Union of Elevator Constructors

ENGI = International Union of Operating Engineers

(operators of various types of power equipment)

IRON = International Association of Bridge, Structural and Ornamental Iron Workers

LABO = Laborers' International Union of North America

PAIN = International Brotherhood of Painters and Allied Trades

(painters, drywall finishers, glaziers, soft floor layers)

PLAS = Operative Plasterers' and Cement Masons' International Association of the United States and Canada

(cement masons, plasterers)

PLUM = United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada

(plumbers, pipefitters, steamfitters, sprinkler fitters)

ROOF = United Union of Roofers, Waterproofers and Allied Workers

SHEE = Sheet Metal Workers International Association

SU.... = As discussed above, the "SU..." identifier is for rates derived from survey data where the union rate(s) were not determined to be prevailing for the classification(s) listed. (The data reported for such a classification and used in computing the prevailing rate may have included both union and non-union wage data.) Note that various classifications, for which non-union rates have been determined to be prevailing, may be listed in alphabetical order under this identifier, which the computer places into the wage determination in alphabetical order, as listed here.

TEAM = International Brotherhood of Teamsters

Section C

Questions and Answers on the use of Davis-Bacon

Wage Determinations

Question. How do I obtain a wage determination for a construction project to be performed at a location not covered by a published determination?

Answer. If no general wage determination is listed for a given county and type of construction, the following procedure to obtain a project wage determination should be followed.

The Federal agency funding or financially assisting the construction project requests a wage determination under the Davis-Bacon Act or any of the related prevailing wage statutes by submitting a Standard Form (SF) 308 to the following address:

U.S. Department of Labor
Employment Standards Administration
Wage and Hour Division
Branch of Construction Wage Determinations
200 Constitution Avenue, N.W., Room S-3014
Washington, D.C. 20210

In completing a SF-308, the agency must furnish:

(1) A sufficiently detailed description of the project to indicate the type(s) of construction involved. Separate attachments, if necessary for identification of the type of project, must be furnished.

(2) The county (or other civil subdivision) and State in which the proposed project is located. The time required for processing requests for wage determinations varies according to the facts and circumstances in each case. An agency should anticipate that such processing will take at least 30 days.

Question. The wage determination applicable to my project does not contain a class of workers which is needed to complete construction. Can other worker classification(s) and wage rate(s) be approved for use on the project?

Answer. Prior to bid opening, if the only classification that will perform work on a contract is not listed on a general wage determination for the type of construction in the area, the contracting/assisting agency may submit a SF-308 request for a project wage determination for application to that project. In order to assure special treatment of a request where this circumstance exists, a note explaining the special circumstances should be made in the project description block of the SF-308. (A similar note may be made on a SF-308 request for a project wage determination, where a general wage determination is not applicable, and all of the work on the project will be performed by a particular classification, as a means to assure that a wage rate for that classification will be issued for the project).

Example: An upcoming contract calls for repainting all the residences at a military base, and there is no painter classification in the general wage schedule issued for application to residential construction in the county where the project is located. A SF-308 may be submitted by the agency for application to that contract, and a project wage determination will be issued with a painter classification and wage rate for use prior to bid opening (or the other applicable date where certain assistance programs of the Department of Housing and Urban Development (HUD) are the basis for coverage under the Davis-Bacon and related Acts). If there is no general wage determination issued for that area and type of construction, the same procedure should be followed.

After contract award, if the contract wage determination does not contain a class of workers that is needed to complete the construction, a contractor shall submit to the contracting officer a request for the addition of the needed classification(s) of laborers or mechanics not listed in the wage determination, together with proposed wage rates and fringe benefits conformable to the wage determination.

The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. An additional classification action, even if undisputed, is not valid unless the Department of Labor has approved it. If a dispute exists, the matter must be referred to the Wage and Hour Division for resolution, together with the views of all interested parties and the recommendation of the contracting officer. Approval of the additional classification and the proposed wage rate and fringe benefits requires that the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by any classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and
- (4) There is evidence of agreement on the classification and proposed wage rate among the parties involved, or the views of those involved -- the contractor(s), employees (if known) or their representative, and the contracting officer/agency -- are forwarded for consideration to the Wage and Hour Division; and
- (5) The request does not involve wage rates for apprentices or trainees.

All conformance notices should be responded to in writing within 30 days of receipt. These responses either approve or deny the request or inform the submitting agency that additional time will be required. Failure to receive a response does not constitute approval. If a response is not received, the Wage and Hour Division should be contacted directly. Every conformance request is analyzed to verify that the criteria for approval are met.

Any interested person requesting reconsideration of a conformance should present their request in writing accompanied by supporting data or other pertinent information to the Wage and Hour Division. The Wage and Hour Division should respond within 30 days or notify the requestor within this time frame that additional time is needed.

If reconsideration of a conformance action has been sought and denied, an appeal for review may be filed with the Administrative Review Board. (See 29 CFR 1.8 and 1.9, and 29 CFR Part 7).

Question. How do workers on a construction site know that a project is covered by the Davis-Bacon Act? How do they know the prevailing wage to which they are entitled?

Answer. The wage determination (including any additional classifications and wage rates conformed) and a Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen. The WH-1321 poster may be obtained at no charge from offices of the Wage and Hour Division. In the absence of such posted information, any person who wants to determine if the project is covered should contact the federal agency funding or assisting the project or the Wage and Hour Division. Multi-year construction contracts that contain option provisions by which a contracting agency may unilaterally extend the term of the contract require inclusion of a current wage determination at the time the option is exercised. (In contrast, in situations where a contractor is given additional time to complete original contract commitments, the wage determination in that contract applies).

Question: Once construction has begun, are the workers' wage rates affected when the wage determination for the area in which the project is located is changed?

Answer. As a general rule, the wage determination incorporated into a bid solicitation and related contract award establishes the minimum wage rates and fringe benefits which must be paid for the entire term of the contract.

Where the proper wage determination is incorporated into a contract prior to award of the contract, wage determination modifications issued after bid opening are not applicable to the contract -- except in the case of a general wage determination in a contract that has not been awarded within 90 days after the bid opening and an extension of the 90-day limit has not been granted. (Specific requirements involving dates other than bid opening apply for projects assisted under the National Housing Act and for projects that receive housing assistance payments under section 8 of the U.S. Housing Act of 1937).

Upon his or her own initiative or at the request of an agency, the Administrator may correct any wage determination if he or she finds that the determination contains an inadvertent clerical error. For example, a wage determination contains a wage rate where there is a transposition of numbers, such as a fringe benefit of \$2.53 appears in the wage determination as \$2.35.

Also, the Administrator may issue a wage determination after contract award or after the beginning of construction if:

(a) the contracting/assisting Federal agency has failed to incorporate the applicable wage determination in a contract required to contain prevailing wage rates determined in accordance with the Davis-Bacon Act, or has used a wage determination which by its terms or the provisions of Regulations, 29 CFR Part 1, clearly does not apply to the contract, or

(b) the wrong wage determination has been incorporated in the contract because of an inaccurate description of the project or its location in the agency's SF-308 request.

Under either of these two circumstances, the agency shall either terminate and resolicit the contract with the valid wage determination, or incorporate the valid wage determination retroactive to the beginning of construction through supplemental agreement or through change order, provided that the contractor is compensated for any increases in wages resulting from such change. The method of incorporation of the valid wage determination, and adjustment in contract price, where appropriate, should be in accordance with applicable procurement law.

Question. Is it possible for more than one wage schedule to apply to specifications for a particular contract?

Answer. Construction projects are generally classified as either Building, Heavy, Highway or Residential for purposes of issuing wage determinations. Wage schedules for one or more of these construction categories may have application to construction items contained in a proposed construction project. Guidelines for the selection of proper wage schedules are set forth in All Agency Memoranda Nos. 130 (March 17, 1978) and 131 (July 14, 1978). Any questions regarding the application of these guidelines to a particular project, or any disputes regarding the application of the wage schedules issued for the various construction categories are to be referred to the Wage and Hour Division, together with relevant information, including a complete description of the project and area practice.

Question. As the contracting officer/Federal agency representative, what is my obligation when the wage determination(s) applicable to a construction project contains multiple wage schedules (for different counties and/or types of construction)?

Answer. It is the responsibility of the contracting officer/Federal agency representative to advise contractors which schedule of prevailing wages shall be applied to the various construction items in the bid specifications. Because of the complexities in the application of multiple schedules, the contracting officer should consult with the Wage and Hour Division to resolve any questions.

Question. Can apprentices, trainees, and/or helpers work on a project covered by the Davis-Bacon or related Acts (DBRA), and what wage rates must they be paid?

Answer. Individuals who meet the following definition may be employed as apprentices on DBRA projects:

(a) A person employed and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau,
or

(b) A person in the first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been properly certified to be eligible for probationary employment as an apprentice.

Trainees employed must be persons registered in a construction occupation under a program which has been approved in advance by the U.S. Department of Labor, Employment and Training Administration, as meeting its standards for on-the-job training programs and which have been so certified by that Administration.

Information on wage rates paid to apprentices and trainees is not reflected in Davis-Bacon wage determinations. Similarly, their addition through the additional classification procedure (conformance) is neither necessary nor appropriate. On projects funded by the Federal-Aid Highway Act, apprentices and trainees certified by the Secretary of Transportation are not covered by Davis-Bacon labor standards.

The proper wage rates to be paid to apprentices and trainees are those specified by the particular programs in which they are enrolled, expressed as a percentage of the journeyman rate on the wage determination. In the event employees reported as apprentices or trainees on a covered project have not been properly registered within the meaning of the Regulations and the contract stipulations, or are utilized at the job site in excess of the ratio to journeymen permitted under the approved program, they must be paid the applicable wage rates for laborers and mechanics employed on the project performing in the classification of work they actually performed. This applies regardless of work classifications which may be listed on the submitted payrolls and regardless of their level of skill.

Helper classifications may be issued in or added to a wage determination only where the (a) the duties of the helpers are clearly defined and distinct from those of the journeyman classification and from the laborer, (b) the use of such helpers is an established prevailing practice in the area, and (c) the term "helper" is not synonymous with "trainee" in an informal training program.

Question. What wage rates must be paid to supervisory employees (foremen, superintendents, etc.) employed on a covered project?

Answer. The wage rates for bona fide supervisory employees are not regulated under the Davis-Bacon and related Acts because their duties are primarily administrative or executive in nature rather than those of laborers or mechanics. However, such employees who devote more than 20 percent of their time during a workweek to mechanic or laborer duties are laborers and mechanics for the time so spent, and must be paid at least the appropriate wage rates specified in the wage determination. Employees who are bona fide executive, administrative, or professional employees as defined under the Fair Labor Standards Act at 29 CFR Part 541 are not covered by the Davis-Bacon Act.

Question. If it is believed that the rates on a wage determination do not accurately reflect those prevailing in the area, how may the wage determination be appealed?

Answer. Any interested person requesting reconsideration of a wage determination or of a ruling regarding application of a wage determination to a specific construction project should present their request in writing accompanied by supporting data or other pertinent information to the Wage and Hour Division. The Wage and Hour Division should respond within 30 days or notify the requestor within this time frame that additional time is needed.

An "interested person" is considered to include, without limitation:

(1) Any contractor, or an association representing a contractor, who is likely to seek or to work under a contract containing a particular wage determination, or any laborer or mechanic, or any labor organization which represents a laborer or mechanic, who is likely to be employed or to seek employment under a contract containing a particular wage determination, and,

(2) Any Federal, State, or local agency concerned with the administration of a proposed contract or contract containing a particular wage determination issued pursuant to the Davis-Bacon Act or any of its related statutes.

If reconsideration of a wage determination has been sought and denied, an appeal for review of the wage determination or its application may be filed with the Administrative Review Board, U.S. Department of Labor, Room N-1651, 200 Constitution Avenue, N.W., Washington, D.C. 20210. Requests for review of wage determinations must be filed, and any new wage determination resulting from the appeal must be issued, before contract award or start of construction where there is no award (or under the National Housing Act, before the date of initial endorsement, or the beginning of construction, whichever occurs first; or under Section 8 of the U.S. Housing Act of 1937, before the date of the housing assistance payments agreement, or the beginning of construction, whichever occurs first).

The Wage Appeals Board (now the Administrative Review Board) was established by the Secretary of Labor in 1963 to decide, at its discretion, appeals concerning questions of fact and law related to final decisions of the Wage and Hour Division concerning:

Controversies over the payment of prevailing wage rates, overtime pay, or proper classifications;

Wage determinations issued under the Davis-Bacon and related Acts;

Debarment cases arising under 29 CFR Part 5;

Cases involving the assessment of liquidated damages under the Contract Work Hours and Safety Standards Act;

Appeal of any other final decision under 29 CFR Parts 1, 3, or 5.

The Administrative Review Board consists of three members, one of whom is designated chairman. The members are appointed by the Secretary of Labor and majority vote of the Administrative Review Board is necessary for a decision, except that a decision to hear any appeal may be made by one member. The Board can act as fully and finally as the Secretary of Labor concerning the matters within its jurisdiction. The rules prescribed in 29 CFR, Part 7, "Practice Before Wage Appeals Board", govern the proceedings of the Board.

Federal Labor Standards Provisions U.S. Department of Housing and Urban Development
Office of Labor Relations
Form **HUD-4010** (07/2003) ref. Handbook 1344.1

Applicability The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance. **A. 1. (i) Minimum Wages.** All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section I(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers. **(ii) (a)** Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met: **(1)** The work to be performed by the classification requested is not performed by a classification in the wage determination; and **(2)** The classification is utilized in the area by the construction industry; and **(3)** The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination. **(b)** If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where Office of Labor Relations appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.) **(c)** In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.) **(d)** The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification. **(iii)** Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.) **2. Withholding.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts. **3. (i) Payrolls and basic records.** Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section I (b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section I(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.) **(ii) (a)** The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.) **(b)** Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following: **(1)** That the payroll for the payroll period contains the information required to be maintained under 29 CFR 5.5 (a)(3)(i) and that such information is correct and complete; **(2)** That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3; **(3)** That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b). (d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code. (iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees. (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved. (ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved. **(iii) Equal employment opportunity.** The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30. **5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract 6. **Subcontracts.** The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 of this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph. **7. Contract termination; debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12. **8. Compliance with Davis-Bacon and Related Act Requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract 9. **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives. **10. (i) Certification of Eligibility.** By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a) (1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24. **(ii)** No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24. **(iii)** The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than \$5,000 or imprisoned not more than two years, or both." **11. Complaints, Proceedings, or Testimony by Employees.** No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer. **B. Contract Work Hours and Safety Standards Act.** The provisions of this paragraph B are applicable only where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards. **(1) Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek. **(2) Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages.

Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph. **(3) Withholding for unpaid wages and liquidated damages.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph. **(4) Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph. **C. Health and Safety.** The provisions of this paragraph C are applicable only where the amount of the prime contract exceeds \$100,000. **(1)** No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation. **(2)** The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, 40 USC 3701 et seq. **(3)** The Contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

SUPPLEMENTARY GENERAL TERMS AND CONDITIONS

1. Lead-Based Paint Hazard

The contractor is hereby specifically made aware of the HUD lead-based paint regulations, 24 CFR, Part 35, which are applicable to the construction or rehabilitation of residential structures. To the extent that the subject matter of this contract involves residential structures, the contractor will comply with the lead-based paint regulations.

2. Compliance With Air and Water Acts

The contract is subject to the requirements of the Clean Air Act, as amended, 42 USC 1857 et seq., the Federal Water Pollution Control Act, as amended, 32 USC 1251 et seq., and the regulations of the Environmental Protection Agency (EPA) with respect thereto, at 40 CFR Part 15, as amended from time to time.

The contractor and any of its subcontractors for work funded under the contract which is in excess of \$100,000 agree to the following agreements:

- (a) A stipulation by the contractor or subcontractors that any facility to be utilized in the performance of any non-exempt contract or subcontract is not listed on the List of Violating Facilities issued by the EPA pursuant to 40 CFR 15.20.
- (b) Agreement by the contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 USC 1857c-8) and Section 308 of the Federal Water Pollution Control Act; as amended, (33 USC 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.
- (c) A stipulation that as a condition for the award of the contract prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized or to be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.
- (d) Agreement by the contractor that he will include or cause to be included the criteria and requirements in paragraph (a) through (d) of this Section in every non-exempt subcontract and requiring that the contractor will take such action as the Government may direct as a means of enforcing such provision.

In no event shall any amount of the assistance provided under this contract be utilized with respect to a facility which has given rise to a conviction under Section 113(c)(1) of the Clean Air Act or Section 309(c) of the Federal Water Pollution Control Act.

3. Interest of Members, Officers, or Employees of Public Body, Member of Local Governing Body, or Other Public Officials

No member, officer, or employee of the Public Body, or its designees or agents, no member of the governing body of the locality in which the program is situated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the program during his tenure or for one (1) year thereafter, shall have any interest, direct or indirect, in any contract or subcontract, or the proceeds thereof, for work to be performed in connection with the program assisted under the contract.

4. Prohibition Against Payments of Bonus or Commission

The assistance provided under the contract shall not be used in the payment of any bonus or commission for the purpose of obtaining HUD approval of the application for such assistance, or HUD approval of applications for additional assistance, or any other approval or concurrence of HUD required under this contract, Title I of the Housing and Community Development Act of 1974 or HUD regulations with respect thereto; Provided, however, that reasonable fees or bona-fide technical consultant managerial or other such services, other than actual solicitation, are not hereby prohibited if otherwise eligible as program costs.

5. Energy Conservation Provisions

The contractor must recognize mandatory standards and policies relating to energy efficiency contained in the Cost Effective Energy Conservation Measures.

6. Section 109 of the Housing and Community Development Act of 1974

No person in the United States shall on the grounds of race, color, national origin, or sex be excluded from participation in, be denied the benefits, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this Title.

7. Executive Order 11625 – Minority Business Enterprise

(a) It is the policy of the City to take positive steps to maximize the utilization of minority business enterprises in all contract activity administered by the City.

(b) The contractor will utilize his best efforts to carry out this policy in the award of his subcontracts to the fullest extent consistent with the efficient performance of this contract.

As used in the contract, the term "minority business enterprise" means a business, at least fifty percent (50%) of which is owned by minority group members, or in the case of publicly owned businesses, at least fifty-one percent (51%) of the stock is owned by minority group members. For the purpose of this definition, minority groups are members of Blacks, Hispanics, Asians, Native Americans, Alaskans, or Pacific Islanders.

8. Executive Order 12138 – Women's Business Enterprise

(a) It is the policy of the City to take positive steps to maximize the utilization of women business enterprises in all contracts administered by the City.

(b) The contractor will utilize his best efforts to carry out this policy in the award of his subcontracts to the fullest extent consistent with the efficient performance of this contract.

As used in the contract, the term "women business enterprise" means a business, that is at least fifty-one percent (51%) owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management.

9. Age Discrimination Act of 1975

No person in the United States shall, on the basis of age be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

10. Section 504 Handicapped (if \$2,500 or over)

Affirmative Action for Handicapped Workers:

(a) The contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: Employment upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

(b) The contractor agrees to comply with rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(c) In the event of the contractor's non-compliance with the requirements of this clause, actions for non-compliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(d) The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, provided by or through the contracting officer. Such notices shall state the contractor's obligation under the law to take affirmative action to employ and advance in employment qualified handicapped employees and applicants for employment, and the rights of applicants and employees.

(e) The contractor will notify each labor union or representative or workers with which it has a collective bargaining agreement or other contract understanding, that the contractor is bound by the terms of Section 503 of the Rehabilitation Act of 1973, and is committed to take affirmative action to employ and advance in employment physically and mentally handicapped individuals.

(f) The contractor will include the provisions of this clause in every subcontract or purchase order of \$2,500 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to Section 503 of the Act, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for non-compliance.

SECTION 3 REQUIREMENTS

**SECTION 3 CLAUSE AND CERTIFICATION FOR COMPLIANCE FOR TRAINING, EMPLOYMENT
AND CONTRACTING OPPORTUNITIES FOR BUSINESS AND LOW INCOME PERSONS**

(contracts over \$100,000)

- A. The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, (12 U.S.C. of 1701u) (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low and very low income persons, particularly persons who are recipients of HUD assistance for housing.
- B. The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement section 3. As evidenced by their execution of the contract, the parties certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.
- C. The contractor agrees to send to each labor organization or representative of worker with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or worker's representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- D. The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 135 (if subcontract is over \$100,000), and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 135.
- E. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 135.
- F. Noncompliance with HUD's regulations in 24 CFR part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contacts.
- G. The following forms: Contractor's Certification of Compliance with Section 3, Workforce Needs Table (Attachment I) and Utilization of Section 3 Business Concerns (Attachment II) must be completed and submitted to the Bureau of Development and Inspections **PRIOR** to executing the contract in order to determine compliance with Section 3 requirements. The Bureau will determine the acceptability of the submission.

COMPANY

By:

AUTHORIZED SIGNATURE

Title:

Date:

ATTACHMENT I

WORKFORCE NEEDS TABLE

TOTAL # OF LOW INCOME CITY RESIDENTS TO BE HIRED *

TOTAL # OF SKILLED WORKERS OCCUPATION CATEGORY +	TOTAL # OF TRAINEES ON PAYROLL	TOTAL # OF SKILLED WORKERS ON PAYROLL	TOTAL # OF TRAINEES TO BE HIRED	TO BE HIRED	SKILLED WORKERS	TRAINEES

TOTALS:

- * The numerical goal for hirees is 20% of the aggregate number of new hires.
+ These classifications should relate to the classifications found in the wage rate determination.

EMPLOYMENT AND TRAINEE CERTIFICATION

A. The Company hereby certifies that the above table represents the approximate number of employee and trainee positions required in the execution of this contract and which are not presently filled by regular and permanent employees and also represents the number of low income City residents that the company proposes to make good faith efforts to employ.

B. The Company certifies that it will make a good faith effort to employ the number of lower income employees and trainees stated above utilizing: [1] such community based organizations and service agencies as the Spanish Speaking Council of Reading and Berks County, Berks Employment and Training Office, Berks Community Action Program, Reading Housing Authority Tenant Councils, and any others that may assist in meeting the goals; and [2] on-site company employment posters.

C. The Company certifies that the trainees to be utilized on the project in no event is less than the number of trainees determined by the Secretary of Labor for each construction occupation.

COMPANY

DATE: _____

BY: _____
(Authorized Signature)

ATTACHMENT II**UTILIZATION OF SECTION 3 PROJECT BUSINESSES**

The Company shall require the services of companies engaged in the business of:

PROPOSED SUPPLIERS AND SUBCONTRACTORS	ESTIMATED \$ AMOUNT	SECTION 3 (YES OR NO)*
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

* The numerical goal for committing to award to Section 3 business concerns is at least 10% of the total dollar amount of all Section 3 covered contracts for building trades work arising in connection with housing rehabilitation, housing construction, and other public construction; and, at least 3% of the total dollar amount of all other Section 3 covered contracts.

NOTE: A Section 3 business concern is defined as business: [1] that is 51% or more owned by Section 3 residents; or [2] whose permanent, full-time employees include persons, at least 30% of whom are currently Section 3 residents, or within three years of the date of first employment with the business concern were Section 3 residents; or [3] that provide evidence of a commitment to subcontract in excess of 25% of the dollar award of a subcontract to be awarded to business concerns that meet the qualifications set forth in number 10 and 20 of this definition. The Company certifies that it will make a good faith effort to utilize business concerns located in the City of Reading to the greatest extent feasible for Contract No. _____ in contracting for work to be performed in connection with the completion of the contract.

COMPANY _____

DATE: _____

BY: _____
(Authorized Signature)

GENERAL PROVISIONS

GENERAL PROVISIONS

G.1 SUB-HEADINGS. The paragraph headings are inserted in these provisions and the following specifications for convenience only and shall not be considered as interpreting or limiting the application of paragraphs.

G.2 DEFINITIONS. The following terms and expressions used in this contract and specifications shall be understood as follows:

The expression "The City" shall mean the City of Reading, Pennsylvania, the party of the first part to this contract.

The word "Engineer" shall mean the Engineer, Architect, or other official in direct charge of the work for the City or his authorized representative as designated by the applicable Director.

The word "Inspector" shall mean an inspector of the City assigned to the inspection of materials, structures and workmanship under this contract.

The word "Contractor" shall mean the party of the second part to this contract, whether a corporation, partnership, or individual.

The word "Specifications" shall mean the specifications describing the work, the drawings, and the general provisions.

The word "Drawings/Plans" shall mean the general drawings, plans, maps, diagrams or illustrations accompanying these specifications, and such supplementary drawings as may be furnished from time to time.

The term "Materials" as used herein includes, in addition, to materials incorporated in the project used or to be used in the operation thereof, equipment and other materials used and/or consumed in the performance of the work.

Wherever in the specifications the words "to be," "to be done," "if," "as," "directed," "required," "permitted," "ordered," "instructed," "designated," "considered necessary," or words of like import are used, it shall be understood that the direction, requirement, permission, order, instruction, designation or decision of the Engineer is intended, and similarly the words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, acceptable or satisfactory to, the applicable Director or the Engineer, unless the context show that another meaning is plainly intended.

G.3 SPECIFICATIONS AND DRAWINGS. The specifications and drawings are intended to cover all of the work that is known to be required to effect a complete installation. They are intended to be mutually explanatory of each other, but should any discrepancy or inconsistency appear or any misunderstanding arise as to the import of anything contained in either the specifications or the drawings, the interpretation of the doubtful portions will be made by the Engineer, whose decision shall, in all cases, be final and binding on the Contractor. Any materials or workmanship obviously necessary to satisfactory completion shall be furnished and installed whether or not specifically shown or mentioned. Any corrections of errors or omissions in the specifications or drawings, or both, may be made by the Engineer when such correction is necessary for the proper fulfillment of their intention as determined by him/her. Figures shall have preference over scale in reading dimensions. Copies of the specifications and drawings shall be kept constantly at the work. Any supplementary or detail drawings which may be made by the Engineer subsequent to the date of this contract, relating to the work herein contemplated, as showing more particularly the details of the work to be done, or specifications and the drawings furnished by the Contractor and approved by the Engineer, are, and are to be held to be, controlling parts of this contract insofar as they do not conflict with other provisions of the contract.

If the Contractor, in the course of the work, finds any discrepancy between the plans and the physical conditions of the locality, or any errors or omissions in the plans or in the layout as given by the points and instructions furnished by the Engineer, it shall be his duty to inform the Engineer, in writing, and the Engineer shall promptly verify the same. Any work done after such discovery, until authorized, will be done at the Contractor's risk.

G.4 ENGINEER TO DECIDE. All work under this contract shall be done in a manner acceptable to the Engineer, who shall determine the amount, quality, acceptability and fitness of the several kinds of work and material which are to be paid for hereunder, and shall decide all questions which may arise as to measurements of quantities and the fulfillment of the conditions of this contract on the part of the Contractor.

G.5 WORK TO BE DONE IN ACCORDANCE WITH SPECIFICATIONS AND DRAWINGS. The work at all stages of its completion must conform with the specifications and drawings and with the lines and grades and other instructions of the Engineer, as given from time to time during the progress of the work. In no case will any work in excess of the requirements of the drawings as interpreted by the Engineer be paid for unless authorized in writing by the Engineer.

G.6 RIGHT TO MAKE CHANGES IS RESERVED. The City reserves the right to make alterations in the location, lines, grade, plan, form dimensions, numbers or materials of the work herein contemplated, either before or after the commencement of construction. If such alterations diminish the amount of work to be done, they shall not form the basis for a claim for damage or for loss of anticipated profits from the work which may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done and at prices stipulated for such work under this contract. All work actually done under a unit price (where applicable) contract, whether more or less than the quantity estimated or specified, shall be paid for by the determined units, on the basis of the bid per unit in the proposal.

G.7 EXTENSION OF TIME. If the Contractor is delayed at any time in the progress of the work by any act or neglect of the City, or by City employees, or by any other contractor employed by the City, or by changes ordered in the work, or by strikes, lockouts, fire, unusual delay in transportation, unavoidable casualties or any causes beyond the Contractor's control, or by any cause which the Engineer shall decide to justify the delay, then the time of completion shall be extended for such reasonable time as the Engineer may decide subject to the approval of the applicable Director.

No such extension shall be made for delay due to rejection of defective materials or workmanship or for any delay occurring more than seven (7) days before claim therefore is made in writing to the Engineer. In the case of a continuing cause of delay, only one claim is necessary.

If no schedule or agreement stating dates upon which drawings shall be furnished is made, then no claim for delay shall be allowed because of any delay in the furnishing of drawings to the Contractor.

G.8 ADEQUATE PLANT AND METHODS. The Contractor shall furnish such construction plant and use such methods and appliances as will secure a satisfactory quality of work and a rate of progress which will insure the completion of the work within the time specified. Before starting the installation of the construction plant, the Contractor shall submit to the Engineer, for approval, a plan showing the general arrangement of the plant to be installed and the proposed facilities for storage of materials and equipment. If at any time the plant or any portion of it shall appear to the Engineer to be, or likely to become, inadequate, incomplete, faulty or unsafe, the Contractor shall promptly obey the orders of the Engineer to supplement or to remove or replace the same; but the failure of the Engineer to issue such orders shall not relieve the Contractor of his responsibility for the efficiency, adequacy and safe operation of the plant.

He shall cover and protect his work from damage, and all injury to the same, before completion of the contract.

He shall be financially responsible for all damage to the party of the first part or its property, to other contractors, to the neighboring premises, or to any private or personal property, for any cause whatsoever, during the period of the contract.

G.9 WORKERS. The Contractor shall employ only competent and skillful employees to do the work, and whenever the Engineer shall notify the Contractor, in writing, that any person on the work is, in his/her opinion, incompetent, unfaithful or disorderly, uses threatening or abusive language to any official having supervision of the work, or is in any other way unsatisfactory, such person shall be discharged from the work and shall not again be employed on it except with the consent of the Engineer.

Neither party shall employ or hire any employee of the other party without the latter's consent.

G.10 WAGES. All employees directly employed on this work shall be paid wages which shall in no event be less than the minimum hourly wage rates for skilled, semi-skilled, and unskilled labor prescribed by the Commonwealth of PA Prevailing Wage Act, P.L. 987 as may be amended, if applicable.

G.11 PENALTY FOR FAILURE TO LIVE UP TO MINIMUM WAGE CONTRACT. A penalty shall be exacted from the Contractor in an amount equal to twice the difference between the minimum wage contained in the prescribed wage rates, and the wage actually paid to each laborer or mechanic for each day during which he has been employed at a wage less than that prescribed.

G.12 INSPECTORS TO REPORT VIOLATIONS. Every person assigned as an Inspector of the work to be performed under this contract, in order to aid in enforcing the fulfillment of the minimum wage requirements thereof, shall, upon observation or investigation, report to the applicable Director, all violations of minimum wage stipulations, together with the name of each laborer or mechanic who has been paid a wage less than that prescribed, and the day or days of such violation.

G.13 PENALTIES TO BE WITHHELD FROM MONEYS DUE THE CONTRACTOR.
All minimum wage violation penalties shall be withheld and deducted for the use of the City from any moneys due the Contractor by the City; provided, that if the Contractor subsequently pays to all laborers and mechanics the balance of the amounts stipulated as minimum wages, the City shall pay to the Contractor the amounts so withheld.

G.14 CONTRACTOR'S RESPONSIBILITY FOR EMPLOYEES. The Contractor hereby assumes all responsibility for himself/herself, his/her agents and employees growing out of connection with the execution of the work called for by this contract, for the violation of, City ordinances and the laws governing contract work in the Commonwealth of Pennsylvania. The Contractor further agrees to hold the City of Reading harmless from all responsibility for employees on this work under the Workmen's Compensation Act of the Commonwealth of Pennsylvania, and to carry insurance on his/her employees, as provided thereby.

G.15 CONTRACTOR REPRESENTED ON THE WORK. The Contractor shall give personal attention constantly to the faithful prosecution of the work and shall be present, either in person or by a competent superintendent, on the site of the work, continuously during its progress. Such representative shall have authority to receive and to act without delay upon all instructions of the Engineer or assistants in the prosecution of the work in conformity with the contract.

Insofar as it is practicable, all orders given by the Engineer to the Contractor shall be in writing. In those cases where orders are given orally they shall be confirmed in writing. Orders or directions, written or oral, from the Engineer, delivered to the Contractor's office shall be considered as delivered to the Contractor.

G.16 REPRESENTATIVE MUST BE PRESENT. In case the Engineer or a representative may at any time have occasion to give directions regarding the work for the reason that the same is not, in the Engineer's opinion, being carried out in accordance with the provisions of this contract, and should there be no responsible representative of the Contractor on the ground empowered to receive such instructions, the Engineer or a representative shall order that particular portion of the work to be stopped until such representative of the Contractor appears and receives instructions. It is hereby agreed that suspensions of the work for such cause shall not entitle the Contractor to claims for damage of any kind, nor to an extension of the time in which to complete the work to be done under this contract.

G.17 LEGAL ADDRESS OF CONTRACTOR. The address given in the bid or proposal upon which this contract is based is hereby designated as the legal address where all notices, letters and other communications to the Contractor shall be mailed or delivered prior to the beginning of the work provided for in this contract. The delivery at the above-named place, or depositing in a post-paid wrapper directed to the above place, in any post office box regularly maintained by the post office, of any notice, letter or other communication to the Contractor, shall be deemed sufficient service thereof upon the Contractor and the date of said service shall be the date of such delivery or mailing.

G.18 CHANGE IN ADDRESS. Such address may be changed at any time by an instrument in writing executed and acknowledged by the Contractor and delivered to the City. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter or other communication upon the Contractor personally.

G.19 LAWS, ORDINANCES AND REGULATIONS. The Contractor shall be fully informed as to all laws, ordinances and regulations in any manner affecting those engaged or employed in the work, or the materials used in the work, or in any way affecting the conduct of the work, and of all orders and decrees of bodies or tribunals having any jurisdiction over the same, if any discrepancy or inconsistency shall be discovered in this contract, specifications or drawings, in relation to any such law, ordinance, population, order or decree, the contractor shall immediately report the same in writing to the Engineer. At all times the Contractor shall observe and comply with all laws, ordinances, regulations, orders and decrees which may be in effect during the progress of this contract; and shall indemnify and save harmless the City and its officers and employees against any claim or liability arising from the violation of any legal requirement in the prosecution of this contract.

G.20 INDEMNIFICATION OF CITY. In case any action at law, proceeding in eminent domain, or suit in equity may or shall be brought against the party of the first part, or any of its offices or agents, for or on account of the failure, omission or neglect of the Contractor or the subcontractors, his/her or their employees or agents, to do and perform any of the covenants acts, matters, or things by this contract undertaken to be done or performed by the Contractor or subcontractors, his/her or their employees or agents, or for any injury or damage caused by the negligence of the Contractor or subcontractors, his/her or their employees or agents, or for damage or injury for which the Contractor undertakes responsibility under the provisions of this contract, the Contractor shall immediately assume and take charge of the defense to such actions, proceedings or suits in like manner and to all intents and purposes, as if said actions, proceedings or suits had been brought directly against the Contractor; and the Contractor shall also indemnify and save harmless the party of the first part, its officers and agents, of and from all loss, cost or damage whatever arising out of such actions, proceedings or suits as may or shall be brought as aforesaid.

G.21 SUITS AND CLAIMS. The Contractor agrees to indemnify and save harmless the City of Reading, the applicable Director, the Engineer, and their assistants, from all suits or actions of every name and description, either in law or in equity, including proceedings in eminent domain for the recovery of consequential damages, or for or on account of use of patented appliance, brought against them or either of them, or for any damage or injuries received or sustained by any party or parties, person or persons, natural or artificial, either in the performance or as a result of the work under this agreement, regardless of whether such suits, actions or proceedings brought are based or grounded upon negligence of the Contractor, the subcontractors, or his/her or their agents, servants or employees. The Contractor further agrees that all or as much of the monies due under this agreement as shall be or may be considered necessary by the applicable Director, shall or may be retained, without any liability of the City to the Contractor, for interest thereon because of the retention thereof, until all such suits, proceedings or claims have been settled or terminated, and satisfactory evidence to that effect furnished to the applicable Director, provided however, that no such monies shall be retained by the City after six (6) years following the completion and acceptance of the work under the contract, excepting for or on account of claims filed or suits or proceedings begun before the expiration of the applicable statute of limitations.

G.22 RESPONSIBILITY FOR INJURY. The Contractor shall assume all responsibility for loss, damage or injury to persons or property arising out of the nature of the work, from the actions of the elements, or from any unforeseen or unusual difficulties over which the City has no control, in addition to and without limiting the Contractor's liability under the other provisions of the contract.

G.23 CONTRACTOR'S CLAIMS FOR DAMAGE. If the Contractor claims compensation for any damage alleged to have been sustained by reason of any act or omission on the part of the City or any of its agents, he shall, within one (1) week after the sustaining of such damage, make a written statement to the Engineer of the nature of the damage sustained, and shall, on or before the fifteenth (15th) day of the month succeeding that in which any such damage shall have been sustained, file with the Engineer an itemized statement of the details and amounts of such damage, and unless such statement shall be made as so required, the claim for compensation shall be forfeited and invalid, and the Contractor shall not be entitled to payment on account of any such damage.

G.24 LINES AND GRADES. All lines and grades will be given by the Engineer, but the Contractor shall provide such material and give such assistance therefore as may be required by the Engineer, and the marks so given shall be carefully preserved. The Contractor shall keep the Engineer informed, a reasonable time in advance, of the time and places at which he/she intends to work, in order that lines and grades may be furnished and necessary measurements for record and payment made with the minimum inconvenience to the Engineer or delay to the Contractor. No claim for extra payment will be allowed for the cost to the Contractor of any material, work or delay occasioned by giving lines and grades, or making necessary measurements or inspections, as all such cost shall be considered to have been included in the price bid for the work.

G.25 INSPECTION. The Engineer will appoint such person or persons as may be deemed necessary to inspect properly the materials furnished and the work done under this contract, and to see that the same correspond strictly with these specifications. Such materials and workmanship shall always be subject to the approval of the Engineer, but no inspection, approval or acceptance of any part of the work herein contracted for or of the materials used therein, nor any payment on account thereof, shall prevent the rejection of said work or materials at any time thereafter during the existence of this contract, should said work or materials be found to be defective, or not in accordance with the requirements of the contract.

The Contractor shall permit, or secure permission for the Engineer or a duly authorized Inspector or representative to enter any manufactory, shop or other place where any material for, or part of the work is being prepared, manufactured or constructed, at any time when such work is in progress. The Contractor shall furnish and prepare, or cause to be furnished or prepared, without charge, all such assistance, appliances, samples of materials and test specimens as may be ordered by the Engineer or such Inspector or representative for the purpose of making official tests and investigations. The Engineer shall be notified of the time and place of preparation, manufacture or construction of any material for, or part of the work which he/she may wish to inspect before delivery at the site of the work. Such notification shall be given a sufficient time in advance of the beginning of the work on such material or part to allow arrangements to be made for inspection and testing.

G.26 NIGHT WORK. No night work, except for the inspection of lighting, requiring the presence of the Engineer or Inspector will be permitted except in case of emergency, and then only with the written consent of the Engineer and to such an extent as may be judged necessary.

G.27 SUNDAY WORK. No Sunday work will be permitted, except in case of great emergency, and then only with the written consent of the Engineer, and to such extent as is absolutely necessary.

G.28 NO WORK IN BAD WEATHER. No work shall be done under this contract when, in the opinion of the Engineer, the weather is unsuitable for good and careful work to be performed. No concrete work shall be done on days on which the temperature falls below 25 degrees Fahrenheit. Should the severity of the weather continue such that the work cannot be prosecuted successfully, the Contractor, upon order of the Engineer, shall cease all such work until directed to resume the same. In the latter case, suitable extension of time shall be allowed to compensate for time actually lost as provided for in Article G.7.

G.29. NOT TO SUBLET OR ASSIGN. The Contractor shall give personal attention constantly to the faithful prosecution of the work and shall not assign, transfer, convey, sublet or otherwise dispose of this contract, or his/her title, right or interest in or to the same or any part thereof, nor shall the Contractor assign, by power of attorney or otherwise, any of the monies due or to become due, nor issue any order or orders or drafts on the Controller or Treasurer of the City of Reading for any monies due or to become due under this contract, unless by and with the consent of the City first duly had and obtained by resolution entered upon the minutes of said City.

G.30 RIGHT OF PROPERTY IN MATERIALS. Nothing in this contract shall be considered as vesting in the Contractor any right of property in materials used, after they shall have been attached to or incorporated in the work, nor in materials which have been estimated for partial payment, but all such materials, upon being so attached, incorporated or estimated, shall become the property of the City.

G.31 DEFECTIVE MATERIALS AND WORKMANSHIP. No materials of any kind shall be used until they have been examined and approved by the Engineer, who shall have full power to condemn any work and materials not in accordance with the specifications, and to require the Contractor to remove any work or materials so condemned. Inspections of the work shall not relieve the Contractor from any of his/her obligations to fulfill the contract as herein described, and defective work shall be made good, and unsuitable materials may be rejected, notwithstanding that such work or materials may have been previously overlooked by the Engineer and accepted or estimated for payment if the work or any part thereof shall be found defective at any time before the final acceptance of the whole work, the Contractor shall immediately make good such defect in a manner satisfactory to the Engineer, and if any material brought upon the ground for use in the work shall be condemned by the Engineer as unsuitable or not in conformity with the drawings or specifications, the Contractor shall forthwith remove such materials from the vicinity of the work. If the Contractor shall fail to remove or replace any defective or damaged materials or work after reasonable notice, the Engineer may cause such material or work to be removed or replaced, and the expense thereof shall be borne by the Contractor.

G.32 RESPONSIBILITY FOR WORK. The Contractor shall be held responsible for any or all materials or work to the full amount of all payments made thereon, and shall be required to make good, at his/her own cost, any injury or damage which said materials or work may have sustained from any source or cause whatever before its final acceptance.

G.33 CONDITIONS UNDER WHICH CITY MAY COMPLETE WORK. If the work to be done under this contract shall be neglected or abandoned, or the contract or any claim thereunder shall be assigned by the Contractor otherwise than as herein specified, or if at any time the Engineer shall be of the opinion, and shall so certify in writing to the City's representative, that the rate of progress is insufficient or that the work, or any part thereof, is unnecessarily or unreasonably delayed, or that the Contractor is violating any of the provisions of this contract or carelessly executing any portion of the work, the City may notify the Contractor and surety in writing to fulfill the conditions of the Contract; and should the Contractor or the surety fail to comply with said notice within ten (10) days, the City may notify the Contractor and the surety to discontinue all work, or any part thereof; and thereupon the Contractor and the surety shall discontinue said work, or said part thereof as the City may designate; and the City may thereupon, by contract or otherwise, as it may determine, complete the work or such part thereof, and charge the expenses thereof to the Contractor or the surety; and may take possession of and use therein such materials, animals, machinery, equipment, implements and tools of every description as may be found upon the work. The expense so incurred shall be deducted and paid by the City out of any monies then due or to become due the Contractor under this contract; or any part thereof; and in case such expense is less than the sum which would have been payable under this contract if the same had been completed by the Contractor, the Contractor shall be entitled to receive the difference, and in case such expense shall exceed the latter sum, the Contractor or the surety shall pay the amount of such excess to the party of the first part.

G.34 ALL PARTS OF WORK COVERED. The Contractor further agrees that the following clauses relative to the construction of the work shall apply to each and all of the separate parts of the work, as though specially mentioned under the different headings in the specifications:

Delivery of Materials - The Contractor shall be entirely responsible for delivery of all materials to the site of the work, making the arrangements therefore.

Engineer Shall Measure - No work shall be covered over or filled in until it shall have been inspected by the Engineer.

Materials Properly Stored - The materials to be used in construction shall be protected from deterioration and damage, and shall be so disposed of as not to endanger the work and in such manner that full access may be had at all times to all work under construction or completed.

Surplus Materials Removed - All parts of the work shall be kept in as neat and orderly condition as circumstances will permit and upon completion of the work, all surplus materials, earth, sand, rubbish and refuse of every kind, and all tools, machinery, equipment and other materials belonging to the Contractor shall be removed from the construction works and adjoining premises so as to leave everything in an acceptable condition, within a week after receipt of final certificate.

G.35 ESTIMATED QUANTITIES APPROXIMATE. In unit price contracts, the quantities of the various classes of work to be done and materials to be furnished under this contract, as estimated by the Engineer and listed in Specifications, attached hereto, are approximate and only for the purpose of comparing, on a uniform basis, the bids offered for the work under this contract; and neither the City nor the Council nor any member of the Council of the City of Reading is to be held responsible if any of the said estimated quantities shall be found to be not even approximately correct in the construction of the work; and the Contractor shall make no claim for damages on anticipated profits or loss of profit, because of a difference between the quantities of the various items of work actually done or materials actually furnished and the estimated quantities stated in the Specifications, or because of the entire omission of any of the quantities or items stated in the Specifications.

G.36 EXTRA WORK. The Contractor shall do any work not herein otherwise provided for which, in the opinion of the Engineer, is necessary for the proper completion of the work, but not such work will be allowed or paid for except on a written order of the Engineer, and there shall be no claim for extra work or materials or for damage sustained except under this Article. The extra work order issued by the Engineer shall specify the basis of payment for the extra work. Any extra work or changes in the work involving changes in the plans and/or specifications shall be approved by the applicable Director, prior to the execution of the work.

G.37 MONTHLY ESTIMATES. Current payments for work done under this contract will be made as follows: on invoices submitted by the Contractor and approved by the Engineer or Architect. Ten percent (10%) of each General Contractor invoice request shall be retained by the City on this contract until it is completed up to City codes and contract specifications and approved by a City Official or person representing a City Official Architect or Engineer.

It is further agreed and understood that inclusion of any portion of the work in the monthly estimate shall not be construed as final approval or acceptance of the same.

G.38 CONTRACTOR SHALL PREPARE FOR FINAL INSPECTION. Upon the completion of the work the Contractor shall tear down and remove all temporary buildings and structures built by the Contractor, remove and thoroughly clear away all debris, forms and surplus materials and leave the site of the work in a neat and satisfactory condition, and shall notify the Engineer when the work is ready for final inspection.

G.39 WORK TO BE PROPERLY PERFORMED. It is expressly understood that acceptance of work and materials during construction will not imply final acceptance of the work, if the final inspection shall disclose faulty workmanship or materials; and all work of whatever kind that, during its progress and before it is finally accepted, may become damaged from any cause, shall be repaired in a manner satisfactory to the Engineer or, if necessary, shall be broken up and removed and replaced with good and satisfactory work by the Contractor at his own expense. All work of every description shall be the best of its respective kind; and everything not particularly specified herein shall be done and finished in the best manner, and as is usual in first-class work of the several kinds.

Failure or neglect on the part of the Engineer, or any authorized agents to condemn or reject any bad or inferior work or materials shall not be construed to imply an acceptance of such work or materials, if such bad or inferior materials or work becomes evident at any time prior to the final acceptance of the work and the release of the Contractor by the Council of the City of Reading; nor shall it be construed as barring the City of Reading at any subsequent time from the recovery for damages of such sum of money as may be needed to build a new all portions of the work in which fraud was practiced or improper materials hidden, whenever found.

G.40 ACCEPTANCE AND FINAL PAYMENT. Upon receipt of written notice that the work is ready for final inspection and acceptance, the Engineer or Architect shall promptly make such inspection, and when he/she finds the work acceptable under the contract fully performed he/she shall promptly issue a final certificate, over his/her own signature, stating that the work provided for in this contract has been completed and is accepted under the terms and conditions thereof, and the entire balance found to be due the Contractor, including the retained percentage, shall be paid to the Contractor within (30) days after the execution of said final certificate.

G.41 WAIVER. Neither acceptance by the City, or any of its officers or employees, nor any order, measurement or certificate by the Engineer, nor any order by the City Council for payment of money, nor any payment for, nor any extension of time, nor any possession taken by the City or its officers or employees, shall operate as a waiver of any portion of this contract or of any power herein reserved to the City, or of any right to damage herein provided; nor shall any waiver of any breach of this contract be held to be a waiver of any other or subsequent breach. All remedies provided in this contract shall be taken and construed as cumulative; that is, in addition to each and every other remedy herein provided.

G.42 ACCEPTANCE OF FINAL CERTIFICATE. The acceptance by the Contractor of payment of the final estimate shall be conclusive evidence of acceptance and approval of estimates, accounting and deductions, and of full payment by the City for all work, labor, materials and services done or furnished hereunder, and of full satisfaction, discharge, release and waiver of all claims and demand of; or on behalf of the Contractor against the City, arising out of this agreement and the execution thereof. It is hereby further agreed that the Contractor shall not be entitled to demand or receive payment except in the manner set forth in this contract; and the Contractor further agrees that the final payment of the amount due under this contract and payment of the bills rendered for work done and materials furnished in accordance with any alterations of the same, shall release the City of Reading from any and all claims and liabilities on account of the work performed and materials furnished under said contract, or any alteration thereof.

G.43 MAINTENANCE AFTER COMPLETION. The Performance Bond shall remain in force for one (1) year from the date of completion and acceptance of the work under this contract, as security against any and all damage which may result from defects of materials or workmanship which may become apparent prior to the expiration of the one-year maintenance period. During this period the Contractor shall, promptly upon notification from the Engineer, repair all breaks and failures due to defects of material or workmanship at his own expense. If the Engineer shall deem it necessary and shall so direct, such repairs shall be made within twenty-four (24) hours after service of notice. If the Contractor unnecessarily delays making repairs ordered, or if delay would cause serious loss or damage, the City may undertake to have such repairs made or defects repaired without previous notice, and the expense of such repairs shall be borne by the Contractor or the surety. The Contractor shall be responsible for any damage resulting to any person or property from any violation of the guarantee and from unnecessary delays in making repairs.

G.44 PRICES. The City agrees to pay, and the Contractor agrees to receive, the price specified in the proposal submitted, as full compensation for furnishing all the materials called for, and for all labor and use of all machinery, equipment and tools necessary for executing the work contemplated in this contract; for all royalties, for patents and patented materials, appliances and processes; also for all loss or damage arising out of the nature of the work, or from the action of the elements, or from any unforeseen reasons, obstructions or difficulties which may be encountered in the prosecution of the work, for all risks of every description connected with the work, and for all expenses incurred by or in consequence of the suspension or discontinuance of said work as herein specified, and for well and faithfully completing the work, and the whole thereof, according to the specifications and drawings and the requirements of the Engineer under them.

G.45 NO EXTRA COMPENSATION. The Contractor further agrees not to ask, demand, sue for, or recover for any extra compensation, for any materials furnished or work done under this contract, beyond the amounts payable for the several classes of work or kinds of materials herein enumerated, which shall be actually performed and furnished at the prices therefore herein agreed upon and fixed.

G.46 CONTRACTOR TO TAKE OUT ALL PERMITS. The Contractor shall take out all necessary permits required by agencies of the City of Reading and/or all other governmental agencies; shall give all notices required by law or ordinances; shall pay all fees and charges incident to the due and lawful prosecution of the work covered by the contract, and shall comply with all laws and regulations relating to buildings and public highways. All permits shall be at his expense.

G.47 NO CLAIM FOR EXTRA WORK. No claim for extra work or material shall be allowed to the Contractor, unless before the performance of all such extra work the applicable Director shall have first authorized the same in writing, and the price or prices to be paid therefore shall first have been agreed upon in writing between the Director and the Contractor, and the same shall have been done or furnished under a written order from the Director given before the performance of such extra work or the furnishing of such extra materials. All claims for extra work or materials in any month shall be made to the Director in writing before the fifteenth (15th) day of the following month, and failing to make such claim within the time required, the right of the Contractor to extra pay for such extra work or materials shall be deemed to have been waived and forfeited.

G.48 WORK TO BE DONE TO THE SATISFACTION OF THE CITY ENGINEER. All the work under this contract shall be done to the satisfaction of the City Engineer, who shall in all cases determine the amount, quality, acceptability and fitness of the several amounts of work and materials which are to be paid for hereunder and shall decide all questions which may arise as to the measurement of quantities in the fulfillment of this contract on the part of the Contractor, and shall determine all questions respecting the true construction or meaning of the plans and specifications, and the determination and decision thereon shall be final and conclusive; and such determination and decision, in case any question shall arise, shall be a condition precedent to the right of the Contractor to receive any money hereunder.

G.49 ENGINEER TO INSPECT AND REJECT. The Engineer shall inspect the materials furnished and the work done, and see that the same strictly correspond to the specifications, and he shall at all times have free access to the works, storehouse and yard of the Contractor, and shall be privileged to take such samples therefrom as he may deem necessary; and if the work, or any material brought on the grounds for the use of the work, or selected for the same, shall be condemned by the Engineer, as unsuitable or not in conformity with the specifications, the Contractor shall forthwith remove such materials from the work.

Before issuance of the final certificate the Contractor shall furnish evidence satisfactory to the Engineer that all payrolls, materials, bills and other indebtedness connected with the work have been paid.

It is understood and agreed by the parties hereto that the final estimate of the Engineer shall be evidence of the amount of work performed by the Contractor under and by virtue of this agreement, and shall be taken as the full measure of the compensation to be received by the Contractor. The aforesaid estimate shall be based upon the contract price for the furnishing of all the different materials and labor, and the performance of all the work mentioned in this contract, including the specifications, and where there may be any ambiguity therein, the Engineer's instructions shall be considered explanatory and the decision shall be final.

No inspection, approval or acceptance of any of the work herein contracted for, or of the materials used herein, or any payment on account thereof shall prevent the party of the first part from objecting to the acceptance of said work or materials at any time during the existence of this contract. Neither the inspection of the applicable Director, or Division Head, or the City Engineer or any of their employees nor any order, measurement or certificate by the City Engineer nor any order by the Director for the payment of money, nor any payment for, or acceptance of, the whole or any part of the work, by the Director of the Division of Planning, nor any extension of time, nor any possession taken by the Director or his employees, shall operate as a waiver of any provision of this contract, or any power herein reserved to the party of the first part, or of any right to damage herein provided; nor shall any waiver of any breach of this contract be held to be a waiver of any other subsequent breach.

Any remedy provided in this contract shall be taken and construed as cumulative; that is, in addition to each and every other remedy herein provided; and in addition to all other suits, actions or legal proceedings the party of the first part shall be entitled to as of right.

G.50 CONTRACTOR NOT TO DISCOMMODE PRIVATE COMPANIES. The Contractor shall afford while the work is underway, the necessary facilities to any and all companies owning railway tracks, pipes, subway ducts, or other surface, sub-surface or super-surface construction on the line of the work, in the preservation of the same from injury, all without charge therefore the expense to the City.

G.51 EXAMINATIONS. At any time before or after completion of the work, should the City Engineer require it, the Contractor shall make such openings, and to such extent, through such part or parts of the work, as the City Engineer may direct, and shall restore the work so distributed to the satisfaction of the City Engineer; and should the work, in the opinion of the City Engineer, whose decision shall be final and conclusive therein, be found faulty in any respect, the whole of the expense incurred thereby shall be defrayed by the Contractor, according to and upon the prices herein set forth, but if otherwise, by the City.

SUPPLEMENTARY GENERAL TERMS & CONDITIONS

SUPPLEMENTARY GENERAL CONDITIONS

PENNSYLVANIA HUMAN RELATIONS ACT CONDITIONS

GENERAL

The CONTRACTOR shall conform to the provisions of Act No. 222 (October 27, 1955) and as amended and supplemented, known as the "Pennsylvania Human Relations Act", and in accordance with the provisions of the Regulations of the Pennsylvania Human Relations Commission, as adopted March 8, 1974, 4 Pa.B. 409, amended March 7, 1975, 5 Pa. B. 434, 16 Pa. Code Chapter 49.

NON-DISCRIMINATION PROVISION

During the term of this CONTRACT, the CONTRACTOR shall agree to the following provisions

(a) The CONTRACTOR shall not discriminate against any employee, applicant for employment, independent contractor or any other person because of race, color, religious creed, ancestry, national origin, age or sex.

The CONTRACTOR shall take affirmative action to ensure that applicants are employed, and that employees or agents are treated during employment, without regard to their race, color, religious creed, ancestry, national origin, age or sex. Such affirmative action shall include, but is not limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training.

The CONTRACTOR shall post in conspicuous places, available to employees, agents, applicants for employment and other persons, a notice, to be provided by the OWNER, setting forth the provisions of this nondiscrimination clause.

(b) The CONTRACTOR shall in advertisements or requests for employment, placed by it or on its behalf, state that all qualified applicants will receive consideration for employment without regard to race, color, religious creed, ancestry, national origin, age or sex.

(c) The CONTRACTOR shall send each labor union or workers' representative or understanding, a notice advising said labor union or workers' representative of its commitment to this nondiscrimination clause. Similar notice shall be sent to every other source of recruitment regularly utilized by the CONTRACTOR.

SUPPLEMENTARY GENERAL PROVISIONS

1. Contract Work Hours and Safety Standards Act Provisions

The Contractor, if the contract is in excess of \$2,000, and any of his subcontractors, shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 USC 327- 330) as supplemented by Department of Labor Regulations contained in 29 CFR Part 5.

Under Section 103 of the Act, the Contractor and any of his subcontractors, shall be required to compute the wages of every mechanic and laborer on the basis of a standard work day of eight hours and a standard work week of forty hours. Work in excess of the standard work day or week is permissible, provided the worker is compensated at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of eight hours in any calendar day or forty hours in any work week. Section 5 of the Federal Labor Standards Provisions, for the Community Development Block Grant Program, dated 9/75, and appearing elsewhere in this Contract, sets forth in detail the Section 103 requirements.

Section 107 of the Act provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to his health and safety, as determined under construction, safe and health standards promulgated by the Secretary of Labor. These requirements do not apply to the purchase of supplies or materials or articles ordinarily available on the open market.

2. Lead-Based Paint Hazard

The Contractor is hereby specifically made aware of the HUD lead-based paint regulations, 24 CFR, Part 35, which are applicable to the construction or rehabilitation of residential structures. To the extent that the subject matter of this Contract involves residential structures, the Contractor will comply with the lead-based paint regulations.

3. Compliance with Air and Water Acts

This Agreement is subject to the requirements of the Clean Air Act, as amended, 42 USC 1857 et seq., the Federal Water Pollution Control Act, as amended, 32 USC 1251 et seq., and the regulations of the Environmental Protection Agency with respect thereto, at 40 CFR Part 15, as amended from time to time.

The Contractor and any of its subcontractors for work funded under this Agreement which is in excess of \$100,000 agree to the following requirements:

(1) A stipulation by the Contractor or subcontractors that any facility to be utilized in the performance of any non-exempt contract or subcontract is not listed on the List of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR 15.20.

(2) Agreement by the Contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 USC 1857c-8) and Section 308 of the Federal Water Pollution Control Act; as amended, (33 USC 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.

(3) A stipulation that as a condition for the award of the Contract prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized or to be utilized for the Contract is under consideration to be listed on the EPA List of Violating Facilities.

(4) Agreement by the Contractor that he will include or cause to be included the criteria and requirements in paragraph (1) through (4) of this Section in every non-exempt subcontract and requiring that the Contractor will take such action as the Government may direct as a means of enforcing such provision.

In no event shall any amount of the assistance provided under this Agreement be utilized with respect to a facility which has given rise to a conviction under Section 113(c)(1) of the Clean Air Act or Section 309(c) of the Federal Water Pollution Control Act.

4. Interest of Members, Officers, or Employees of Public Body,
Member of Local Governing Body, or Other Public Officials

No member, officer, or employee of the Public Body, or its designees or agents, no member of the governing body of the locality in which the program is situated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the program during his tenure or for one year thereafter, shall have any interest, direct or indirect, in any contract or subcontract, or the proceeds thereof, for work to be performed in connection with the program assisted under the Agreement.

5. Prohibition Against Payments of Bonus or Commission

The assistance provided under this Agreement shall not be used in the payment of any bonus or commission for the purpose of obtaining HUD approval of the application for such assistance, or HUD approval of applications for additional assistance, or any other approval or concurrence of HUD required under this Agreement, Title I of the Housing and Community Development Act of 1974 or HUD regulations with respect thereto; Provided, however, that reasonable fees or bona-fide technical consultant managerial or other such services, other than actual solicitation, are not hereby prohibited if otherwise eligible as program costs.

SUPPLEMENTAL GENERAL CONDITIONS

FEDERAL AND STATE STATUTES

This Section is a listing of Federal and State statutes, rules, and regulations dealing with the prevention of environmental pollution and the preservation of public natural resources that could effect the project. The **CONTRACTOR** shall be responsible for compliance with all applicable statutes, rules and regulations, including, but not limited to the following.

PENNSYLVANIA STATUTES AND REGULATIONS

The Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended 35 P.S. 691 et seq. and Chapters 73, 91, 92, 93, 97, 101, and 104 of Department of Environmental Resources regulations promulgated thereunder.

Pennsylvania Sewage Facilities Act, Act of January 24, 1966, P.L. 1535, Subsection 1 (35 P.S., Subsection 750.1) and Chapters 71 and 73 of Department of Environmental Resources regulations promulgated thereunder.

Air Pollution Control Act, Act of January 8, 1960, P.L. 2119, as amended, October 26, 1972, 35 P.S. Subsection 4001 et seq. and Chapters 121, 123, 127, 129, 131, 135, 137, 139, and 141 of Department of Environmental Resources regulations promulgated thereunder.

Surface Mining Conservation and Reclamation Act, Act of May 31, 1945, P.L. 1193, as amended, 52 P.S. 1396.1 et seq. and Chapter 77 of Department of Environmental Resources regulations promulgated thereunder,

Bituminous Coal Open Pit Mining Conservation Act, Act of May 31, 1945, P.L. 1198, 52 P.S. 1396.1 et seq.

Pennsylvania Solid Waste Management Act, Act of July 31, 1968, P.L. (No. 241), 35 P.S. 6001 et seq. and Chapter 75 of the Department of Environmental Resources regulations promulgated thereunder.

Dams and Encroachments Act, Act of June 25, 1913, P.L. 555, Subsection 4, as amended, 32 P.S. 684; Water Power and Water Supply Act, Act of June 14, 1923, P.L. 704, Subsection 7, 32 P.S. 597; Section 1920-A of the Administrative Code, 71 P.S. 510-520 and Chapter 105 of the Department of Environmental Resources regulations promulgated under all three Acts.

Water Well Drillers License Act, Act of May 29, 1956, P.L. 1840 Subsection 12, 32 P.S. 645.12, and Chapter 107 of the Department of Environmental Resources regulations promulgated thereunder.

Waterworks Act, Act of April 22, 1905, P.L. 260, as amended, 35 P.S. 711 et seq., and Sections 1918-A, 1920-A of the Administrative Code 71 P.S. Subsection 510-20 and Chapter 109 of the Department of Environmental Resources regulations promulgated under both Acts.

Sections 1917-A and 1920-A of the Administrative Code, 71 P.S. 510-17 and 510-20 and Chapters 179, 191, 201, 203, 241, and 243 of the Departmental Regulations issued thereunder.

Atomic Energy Act, Act of January 28, 1966, P.L. 152s, Subsection 301 (73 P.S. 1301) and Chapters 221, 227, 229, 231, 233, and 235 of the Department's Regulations issued thereunder.

Act of November 18, 1968, P.L. (No. 322), Subsection 4, (63 P.S. 1004) and Chapters 301, 303, and 305 of the Department's regulations promulgated thereunder,

The State-Pennsylvania Environmental Bill of Rights, Article 1, section 27 of Pennsylvania Constitution.

Land Acquisition Act, Act of June 22, 1964, P.L. 131, 72 P.S. 3946.1 et seq.

Act authorizing Commonwealth to acquire open space, Act of January 19, 1968, P.L. 992, 3 P.S. 5001 et seq.

Land and Water Conservation and Reclamation Act, Act of January 19, 1963, P.L. 996, 32 P.S. 5101 et seq.

Land Recycling and Environmental Remediation Standards Act of May 19, 1995, P.L. 4, No. 2, as amended, 35 P.S. 6062.301 et seq.

Act authorizing covenants with land owners for open space, Act of January 13, 1966, P.L. 1292, 16 P.S. 11941 et seq.

Coal Land Improvement Act, Act of July 19, 1965, P.L. 216, 52 P.S. 30.101 et seq.

Soil Conservation Law Act, Act of May 15, 1945, P.L. 547, 3 P.S. 849 et seq.

Susquehanna River Basin Compact, Act of July 17, 1968, P.L. 32 P.S. 820.1 et seq.

Wheeling Creek Watershed Protection and Flood Prevention Commission Act of August 2, 1967, P.L. 189, 32 P.S. 819.1 et seq.

Disaster Relief Act, Act of July 6, 1961, P.L. 515, 71 P.S. 1689.101 et seq.

Brandywine River Valley Compact, Act of September 9, 1959, P.L. 848, 32 P.S.

Great Lakes Basin Compact, Act of March 22, 1956, P.L. 1333, 32 P.S. 817.1-817

An Act protecting water supply sources, Act of January 18, 1952, P.L. 2148 35 P.S. 731, 732

Stream Clearance Act of June 5, 1947, P.L. 420, 32 P.S. 659

Ohio River Valley Sanitation Compact, Act of April 2, 1945, P.L. 103, 32 P.S., 816.1 et seq.
Potomac River Valley Compact, Act of May 29, 1945, P.L. 1134 32 P.S. 741 et seq.

Act of June 4, 1945, P.L. 1383, 32 P.S. 751.1 et seq.

Uniform Interstate Air Pollution Agreements Act, Act of February 17, 1972

Act limiting the amount of noise produced by motor vehicles, providing noise testing and fixing penalties, Act of January 26, 1972

Act regulating vehicle emission systems, Act of June 16, 1972

Act creating a weather modification board, Act of 449, January 19, 1968, P.L. 1024, 3 P.S. 1101 et seq.

Hazardous Substances: Transportation Act, 1966 of (November 9, 1966), 75 P.S., 2101 et seq., P.L. 657

Vehicle Code, Act of (April 29, 1959), 75 P.S. 101 et seq., P.L. 58, as amended.

State Highway Law, Act of (June 1, 1945), 36 P.S. 670-101 et seq., P.L. 1242, as amended.

Outdoor Advertising Control Act of 1971, Act of (December 15, 1971), 32 P.S. 2718.101 et seq.

Regulating snowmobiles, providing registration and fees, and providing penalties, Act of (August 12, 1971)

Providing for roadside landscaping and scenic development, Act of (September 27, 1966), 36 P.S. 670-413.1, P.L. 94

Act restricting the establishment and maintenance of junkyards along highways, Act of (July 28, 1966), 36 P.S. 2719.1 et seq., P.L. 91

Camp Regulation Act, Act of (November 10, 1959), 35 P.S. 3001 et seq., P.L. 14

The Fish Law of 1925, Act of May 2, 1925, P.L. 448, as amended, 30 P.S. 1 et seq.

Act creating the "Pennsylvania Historical and Museum Commission", Act of June 6, 1945, P.S. 61, 62, 70, 104, 142, 158, 716, P.L. 1398

Relating to wildlife land management and research, Act of (June 24, 1939), 34 P.S. 1311.944, P.L. 239

Penal Code, Act of (June 24, 1939) 18 P.S. 4101 et seq., P.L. 872, as amended

Workmen's Compensation Act, Act of (June 21, 1939), 77 P.S. 1 et seq., P.L. 15

Occupational Disease Act, Act of (June 21, 1939), 77 P.S. 1201 et seq., P.L. 5

The Game Law, Act of (June 3, 1937), 34 P.S. 1311.1 et seq., P.L. 1225

Uniform Standards Code for Mobile Homes, Act 69, May 11, 1972

Industrial Housing Act, Act 70, May 11, 1972

Pennsylvania Meat and Poultry Hygiene Law of 1968, Act of July 9, 1968, P.L. 31 P.S. 438.1 et seq.

Housing Agency Law, P.L. 1688 (1959), 35 P.S. 1680, 101 et seq.

Pennsylvania Pesticide Act of 1957, Act of (1957), 63 P.S. 390-9, P.L. 248

Local Health Administration Law, Act of (August 24, 1951) 16 P.S. 1201 et seq. P.L. 1305

Housing and Redevelopment Assistant Law, Act of (May 20, 1949) 35 P.S. 1661 et seq., P.L. 1633

Housing and Redevelopment Assistance Law, Act of (May 20, 1949) 72 P.S. 5860 612; 5860 701, 5860 703; P.L. 579

Pennsylvania Plant Pest Act of 1937, Act of (April 21, 1937) 3 P.S. 214-1 et seq., P.L. 318

General Safety Law, Act of (May 18, 1937), 43 P.S. 25-1 et seq., P.L. 654

Explosives Law, Act of (July 1, 1937), 73 P.S. 151 et seq., P.L. 2681

Milk Sanitation Law, Act of (1935), 31 P.S. 645 to 660g

Industrial Park Loans, Act of (August 31, 1971) Authorizing the Department of Community Affairs to develop and administer an Urban Technical Assistance Program, Act of (March 21, 1970), 71 P.S. 1049 101 et seq., P.L. 195

Development Act, Act of (May 6, 1968), 73 P.S. 361 et seq.

Urban Redevelopment Law, Act of (November 16, 1967), 35 P.S., 1704. 1 et seq., P.L. 498

Industrial Development Assistance Law, Act of (May 31, 1956), 73 P.S. 351 et seq., P.L. 1911

Industrial Development Authority Law, Act of (May 17, 1957), 73 P.S. 301 et seq., P.L. 1609

Commerce Law, Act of (May 10, 1939), 71 P.S. 1709-1 et seq., P.L. 111

Act 484 (August 23, 1961) bringing clay mines within the scope (Subsidence Insurance) of the Act, Act of (July 1, 1971)

Refuse Disposal Control Act, Act of (September 24, 1968), 52 P.S. 3051 et seq.

Bituminous Mine Subsidence and Land Conservation Act, Act of (April 27, 1966), 52 P.S. 1406.1 et seq., P.L. 31

Interstate Mining Compact, Act of (May 5, 1966), 52 P.S., 3251 et seq., P.L. 40

Pennsylvania Anthracite Coal Mine Act, Act of (November 10, 1965), 52 P.S., 70-101 et seq., P.L. 721 providing funds to alleviate pollution of streams from abandoned coal mines, Act of (December 15, 1965), 35 P.S. 760.1, P.L. 1075

Coal Mine Subsidence Insurance Fund, Act of (August 23, 1961), as amended, 51 P.S. 3201 et seq., P.L. 1068

Oil and Gas Conservation Law, Act of (July 25, 1961), 58 P.S. 401 et seq., P.L. 825

Laws relating to bituminous coal mines, Act of (July 17, 1961), 52 P.S. 701-101 et seq., P.L. 659

Relating to Subsidence Safety, Anthracite Coal, Act of (Sept. 20, 1961), 52 P.S. 672.1 et seq., P.L. 1538

Relating to Mining in Safety Zones, Act of (December 22, 1959), 52 P.S. 3101 et seq., P.L. 1994

Providing for anthracite mine drainage, Act of (July 7, 1955), 52 P.S. 687 et seq., P.S. 258

Coal Mine Sealing Act of 1947, Act of (June 30, 1947), 52 P.S. 28.1 et seq.

FEDERAL STATUTES & REGULATIONS

Airport and Airway Development Act of 1970, 49 U.S.C. 1701, 1703, 1717-1222.

Anadromous Fish Conservation Act, 16 U.S.C. 7579-757f.

Appalachian Regional Development Act of 1965, 40 App. U.S.C., Subsection 1,2, 202, 205, 206, 212.

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Delaware River Basin Compact 75 Stat. 688 Enacted 1961

Department of Transportation Act, 29 U.S.C. 213 (a) (5), 40 U.S.C. 201, 206; 49 U.S.C. 1653

Dingell-Johnson Sport Fish Restoration Act, 23 U.S.C. 204; 23 C.F.R. Part 15

Endangered Species Conservation of 1969, 16 U.S.C., 668aa-668cc-5

Environmental Protection Agency Regulations, 40 C.F.R. Part 15

Federal Aid Highway Act of 1968, 49 U.S.C. 1653, 23 U.S.C. 131, 138, 205, 319;

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Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et. seq. 201, 302, 303, 304, 306, 307, 308, 310, 311, 312, 316, 318, 401, 402, 403, 404, 405

Federal Water Project Recreation Act,

16 U.S.C. 460L-5, 460L-72 to 460L-21

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Fish and Game Sanctuary Act, 16 U.S.C. 694-694b

Fish Restoration and Management Project Act, 16 U.S.C. 777-777k, 777a, 777c, 777c-777g, 16 U.S.C. 777 43 C.F.R. Part 17

Fish and Wildlife Act of 1956, 16 U.S.C. 742a-742j

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Fish and Wildlife Coordination Act, 16 U.S.C. 661-666c

Fisherman's Protective Act of 1967, 22 U.S.C. 1971-1976

Flood Control Act of 1944, 33 U.S.C. 701, 708, 16 U.S.C. 1001, 1002, 4601, also see: River & Harbor Act of 1962 and Flood Control Act of 1962; 33 U.S.C. 426e, 596 and River & Harbors Flood Control Act of 1965, 42 U.S.C., 1962d-4 16 U.S.C. 460d 32 C.F.R. Part 300 36 C.F.R. Parts 311-326, 16 U.S.C. 1001, 1002, 7 C.F.R. Parts 15, 600

Game and Wildlife Act, 16 U.S.C. 715d-1, 715d-2, 715e, 715e-1,

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Highway Beautification Act of 1965, 23 U.S.C. 131,

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Land and Water Conservation Fund Act of 1965, 16 U.S.C. 460L-4 to 460L-11

Migratory Bird Conservation Act, 16 U.S.C. 715-715r, 715g, 715c, 715i-715k,
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Multiple-Use Sustained Yield Act of 1966, 16 U.S.C. 475, 528, 531
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Federal Noise Control Act of 1972, 42 USCA Section 1858

National Emission Standards Act, 42 U.S.C. 1857f-1 to 1857f-7

National Environmental Policy Act of 1969, 42 U.S.C. 4311, 4331-4335, 4341-434
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National Trails System Act, 16 U.S.C. 1241-1249,
 36 C.F.R. Part 251

National Wildlife Refuge System Administration Act of 1966,
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Oil Pollution Act of 1961, 33 U.S.C. 1001-1015
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Recreational Use of Conservation Areas Act, 16 U.S.C. 450K, 50 C.F.R.
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Refuse Act of 1899, 33 U.S.C. 401, 403-4, 406-9, 411-415

Resource Recovery Act of 1970, 42 U.S.C. 3251-3254f, 3256-3259

River and Harbor Act of 1958, 33 U.S.C. 610

Soil Conservation and Domestic Allotment Act
 16 U.S.C. 590-a-590-g, 590i, -590o
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 16 U.S.C. 5909 7 C.F.R. Parts 701-706, 708, 780

Solid Waste Disposal Act,
 42 U.S.C. 3251-3259, 40 C.F.R. Part 30

Water Bank Act, 16 U.S.C. 1301-1311

Watershed Protection and Flood Prevention Act,
16 U.S.C. 1001-1008, 1006a, 1006b
16 U.S.C. 1001-1007 7 C.F.R. Part 600
1006a 7 C.F.R. Part 1800, 1861

Wetlands Acquisition Act, 16 U.S.C. 715K-3 to 715K-5

Wilderness Act, 16 U.S.C. 1131-1136;
36 C.F.R. Parts 251-261,
43 C.F.R. Part 19
50 C.F.R. Part 35

Wildlife Restoration Act, 16 U.S.C. 669-669b, 669c-669i
16 U.S.C. 669 43 C.F.R. Part 17
669i 50 C.F.R. Part 30

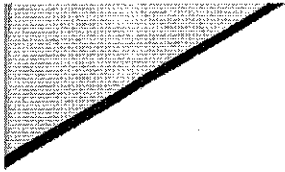
Wild and Scenic Rivers Act, 16 U.S.C. 1271-1287

TECHNICAL SPECIFICATIONS

Insert Construction Completion Deadline Date 01/01/2020

ATTACHMENT 1

TECHNICAL SPECIFICATIONS



CITY OF READING
ANGELICA CREEK PARK ADA TRAIL
REA-20-118
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SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Access to site.
4. Work restrictions.
5. Specification and drawing conventions.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.2 PROJECT INFORMATION

A. Project Identification: Angelica Creek Park ADA Trail.

1. Project Location: 575 Saint Bernardine Street, City of Reading, PA, 19607.

A. Owner: City of Reading

815 Washington Street, Reading PA 19601

1. Owner's Representative: Cindy Castner, Public Property Manager.
Phone: 610-655-6220

B. Engineer: CEDARVILLE Engineering Group, LLC.

159 E. High Street, Suite 500, Pottstown, PA 19464

1. Engineer's Contact: Kyle R. Turner, P.E.
Phone: 610-705-4500

1.3 PROJECT TIME FOR COMPLETION AND LIQUIDATED DAMAGES

A. Time of the Essence

1. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract. The Contractor shall make every effort to complete the work prior to the substantial completion date.
2. Substantial Completion shall be defined as the trail being opened to the public.

3. Final Completion shall be defined as all Punchlist and Contract Requirements are completed to the satisfaction of the City of Reading and its representatives.

B. Contract Times: Days

1. The Work will be substantially completed on or before 60 days after the date when the Contract Times commence to run, starting the day a Notice to Proceed is issued and completed and ready for final payment within 90 days after the date when the Contract Times commence to run, starting the day a Notice to Proceed is issued.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and consists of the following:

1. Removal of Existing Features
 - a. Selective demolition of existing trail path and features within project area which are in conflict with the proposed design. This includes any excavation or rough grading required to achieve the project design.
2. Proposed Outdoor Developed Areas
 - a. Installation of ADA accessible asphalt path
 - b. Installation of picnic area with tables and accessible walkways
 - c. Installation of benches placed along asphalt pathway.

B. Type of Contract.

1. Project will be constructed under a single prime contract.

C. Contract Funding Sign

1. The Contractor shall erect and maintain a project sign on site at all times. The sign shall be in conformance with the project drawings and at a minimum:
 - a. Be 4'x6' in size;
 - b. State the project name;
 - c. State the project funding sources indicated on the project plans;
 - d. Show the DCNR Keystone logo;
 - e. Be found acceptable by the City and any additional partners involved in the project funding.

1.5 ACCESS TO SITE

A. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Limits: Confine construction operations to Limits of Disturbance shown on Plans.

1.6 WORK RESTRICTIONS

A. Work Restrictions, General: Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 8 a.m. to 5 p.m., Monday through Friday, unless otherwise indicated.
- C. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Engineer not less than two days in advance of proposed disruptive operations.
 - 2. Obtain Engineer's written permission before proceeding with disruptive operations.
- D. Nonsmoking Park: Smoking is not permitted within the site.
- E. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.

1.7 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings.
 - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
 - 1. Lump-sum allowances.
 - 2. Unit-cost allowances.
 - 3. Quantity allowances.
 - 4. Testing and inspecting allowances.
- C. Related Requirements:
 - 1. Section 014000 "Quality Requirements" for procedures governing the use of allowances for field testing by an independent testing agency.

1.3 DEFINITIONS

- A. Allowance is a quantity of work or dollar amount established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

1.4 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Engineer of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.
- B. At Engineer's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Engineer from the designated supplier.

1.5 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

1.6 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.7 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Engineer under allowance and shall include taxes, freight and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Engineer under allowance shall be included as part of the Contract Sum and not part of the allowance.

1.8 UNIT-COST ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Engineer under allowance and shall include taxes, freight and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Engineer under allowance shall be included as part of the Contract Sum and not part of the allowance.

1.9 QUANTITY ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Engineer under allowance and shall include taxes, freight and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Engineer under allowance shall be included as part of the Contract Sum and not part of the allowance.

1.10 TESTING AND INSPECTING ALLOWANCES

- A. Testing and inspecting allowances include the cost of engaging testing agencies, actual tests and inspections, and reporting results.

- B. The allowance does not include incidental labor required to assist the testing agency or costs for retesting if previous tests and inspections result in failure. The cost for incidental labor to assist the testing agency shall be included in the Contract Sum.
- C. Costs of testing and inspection services not required by the Contract Documents are not included in the allowance.
- D. At Project closeout, credit unused amounts remaining in the testing and inspecting allowance to Owner by Change Order.

1.11 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
 - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
 - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
 - 3. Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unit-cost allowances.
 - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
 - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS Not Used

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

END OF SECTION

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Quality assurance.
- B. Product options.
- C. Product substitution procedures.

1.2 QUALITY ASSURANCE

- A. Contracts are based on products and standards established in Contract Documents without consideration of proposed substitutions.
- B. Products specified define standard of quality, type, function, dimension, appearance, and performance required.
- C. Substitution Proposals: Permitted for specified products except where specified otherwise. Do not substitute products unless substitution has been accepted and approved in writing by Owner.

1.3 PRODUCT OPTIONS

- A. See Section 016000 - Product Requirements.

1.4 PRODUCT SUBSTITUTION PROCEDURES

- A. Engineer will consider requests for substitutions only within 15 days after date of Owner-Contractor Agreement.
- B. Substitutions may be considered when a product becomes unavailable through no fault of Contractor.
- C. Document each request with complete data, substantiating compliance of proposed substitution with Contract Documents, including:
 - 1. Manufacturer's name and address, product, trade name, model, or catalog number, performance and test data, and reference standards.
 - 2. Itemized point-by-point comparison of proposed substitution with specified product, listing variations in quality, performance, and other pertinent characteristics.
 - 3. Reference to Article and Paragraph numbers in Specification Section.
 - 4. Cost data comparing proposed substitution with specified product and amount of net change to Contract Sum.
 - 5. Changes required in other Work.

6. Availability of maintenance service and source of replacement parts as applicable.
7. Certified test data to show compliance with performance characteristics specified.
8. Samples when applicable or requested.
9. Other information as necessary to assist Architect/Engineer's evaluation.

D. A request constitutes a representation that Contractor:

1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
2. Will provide same warranty for substitution as for specified product.
3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
4. Waives claims for additional costs or time extension that may subsequently become apparent.
5. Will coordinate installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.
6. Will reimburse Owner and Engineer for review or redesign services associated with re-approval by authorities having jurisdiction.

E. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals without separate written request or when acceptance will require revision to Contract Documents.

F. Substitution Submittal Procedure:

1. Submit three (3) of Request for Substitution for consideration. Limit each request to one proposed substitution.
2. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on proposer.
3. Indicate advantage to Owner if substitution is allowed, including cost and/or time savings.
4. Engineer will notify Contractor in writing of decision to accept or reject request.
5. Refer to Supplementary Conditions Section 7.05 for additional requirements.

PART 2 - PRODUCTS Not Used

PART 3 - EXECUTION Not Used

END OF SECTION

SECTION 013000 - ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Coordination and Project conditions.
- B. Preconstruction meeting.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of various Sections of Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Verify that utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate Work of various Sections having interdependent responsibilities for installing, connecting to, and placing operating equipment in service.
- C. Coordination Meetings: In addition to other meetings specified in this Section, hold coordination meetings with personnel and Subcontractors to ensure coordination of Work.
- D. Coordinate completion and clean-up of Work of separate Sections in preparation for Substantial Completion and for portions of Work designated for Owner's partial occupancy.
- E. After Owner's occupancy of premises, coordinate access to Site for correction of defective Work and Work not complying with Contract Documents, to minimize disruption of Owner's activities.

1.3 PRECONSTRUCTION MEETING

- A. Engineer will schedule and preside over meeting after Notice of Award.
- B. Attendance Required: Engineer, Owner, and Contractor.
- C. Minimum Agenda:
 - 1. Distribution of Contract Documents.
 - 2. Submission of list of Subcontractors, list of products, schedule of values, and Progress Schedule.
 - 3. Designation of personnel representing parties in Contract, and Engineer.
 - 4. Communication procedures.
 - 5. Procedures and processing of requests for interpretations, field decisions, submittals, substitutions, Applications for Payments, proposal request, Change Orders, and Contract closeout procedures.
 - 6. Scheduling.
 - 7. Critical Work sequencing.

8. Scheduling activities.
9. Use of premises by Owner and Contractor.
10. Owner requirements and partial occupancy.
11. Construction facilities and controls provided by Owner.
12. Temporary utilities provided by Owner.
13. Security and housekeeping procedures.
14. Application for payment procedures.
15. Procedures for testing.
16. Procedures for maintaining record documents.

- D. Engineer will prepare minutes and distribute to participants within ten (10) days after meeting, with copies to Owner, and those affected by decisions made.

PART 2 - PRODUCTS Not Used

PART 3 - EXECUTION Not Used

END OF SECTION

SECTION 013216 - CONSTRUCTION PROGRESS SCHEDULE

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Submittals.
- B. Bar chart schedules.
- C. Updating schedules.

1.2 SUBMITTALS

- A. Within 20 days after date of Notice to Proceed, submit proposed schedule in electronic format.
- B. Schedule Updates:
 - 1. Overall percent complete, projected and actual.
 - 2. Completion progress by listed activity and subactivity, to within five working days prior to submittal.
 - 3. Changes in Work scope and activities modified since submittal.
 - 4. Delays in submittals or resubmittals, deliveries, or Work.
 - 5. Adjusted or modified sequences of Work.
 - 6. Other identifiable changes.
 - 7. Revised projections of progress and completion.
- C. Narrative Progress Report:
 - 1. Submit with each monthly submission of Progress Schedule.
 - 2. Summary of Work completed during the past period between reports.
 - 3. Work planned during the next period.
 - 4. Explanation of differences between summary of Work completed and Work planned in previously submitted report.
 - 5. Current and anticipated delaying factors and estimated impact on other activities and completion milestones.
 - 6. Corrective action taken or proposed.

1.3 BAR CHART SCHEDULES

- A. Format: Bar chart Schedule, to include at least:
 - 1. Identification and listing in chronological order of those activities reasonably required to complete the Work, including:
 - a. Subcontract Work.

- b. Major equipment design, fabrication, factory testing, and delivery dates including required lead times.
 - c. Preliminary activities.
 - d. Project closeout and cleanup.
 - e. Work sequences, constraints, and milestones.
- 2. Listings identified by Specification Section number.
- 3. Identification of the following:
 - a. Horizontal time frame by year, month, and week.
 - b. Duration, early start, and completion for each activity and subactivity.
 - c. Critical activities and Project float.
 - d. Subschedules to further define critical portions of Work.

1.4 UPDATING SCHEDULES

- A. Maintain schedules to record actual start and finish dates of completed activities.
- B. Indicate progress of each activity to date of revision, with projected completion date of each activity. Update schedules to depict current status of Work.
- C. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
- D. Upon approval of a Change Order, include the change in the next schedule submittal.
- E. Indicate changes required to maintain Date of Substantial and Total Completion.
- F. Submit sorts as required to support recommended changes.
- G. Prepare narrative report to define problem areas, anticipated delays, and impact on schedule. Report corrective action taken or proposed and its effect including effects of changes on schedules of separate Contractors.

PART 2 - PRODUCTS Not Used

PART 3 - EXECUTION Not Used

END OF SECTION

SECTION 013233 – PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - 2. Periodic construction photographs.
 - 3. Final completion construction photographs.

1.2 SUMMARY

- A. Section Includes:
- B. Section 013300 – Submittal Procedures for submitting photographic documentation.
- C. Section 017700 – Closeout Procedures.

1.3 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of Project Site with notation of vantage points marked for location and direction of each photograph and video recording.
- B. Digital Photographs: Submit image files within three days of taking photographs.
 - 1. Digital Camera: Minimum sensor resolution of 8 megapixels.
 - 2. Format: JPG with minimum 3200 by 2400 pixels, in unaltered original files, with same aspect ratio as the sensor, uncropped, date and time stamped, in folder named by date of photograph, accompanied by key plan file.
 - 3. Identification: Provide the following information with each image description in file metadata tag:
 - a. Name of Project.
 - b. Name and Contact information for photographer.
 - c. Name of Engineer.
 - d. Name of Contractor.
 - e. Date photograph was taken.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - g. Unique sequential identifier keyed to accompanying key plan.
- C. Video Recordings: Submit video recordings within seven days of recording.
 - 1. Submit video recordings MOV format electronically via an agreed upon file share system.
 - 2. Identification: With each submittal, provide the following information:
 - a. Name of Project.
 - b. Name and address of photographer.
 - c. Name of Engineer.

- d. Name of Contractor.
- e. Date video recording was recorded.
- f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
- g. Weather conditions at time of recording.
- 3. Transcript: Prepared on 8-1/2-by-11-inch (215-by-280-mm) paper, punched and bound in heavy-duty, three-ring, vinyl-covered binders. Mark appropriate identification on front and spine of each binder. Include a cover sheet with same label information as corresponding video recording. Include name of Project and date of video recording on each page.
 - a.

1.4 USAGE RIGHTS

- A. Transfer copyright usage rights to Owner for unlimited use and reproduction of photographic documentation.

PART 2 - PRODUCTS – Not Used

PART 3 - EXECUTION

3.1 GENERAL

- A. Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.

3.2 PRECONSTRUCTION PHOTOGRAPHS

- A. Photographic documentation is required prior to the start of any construction. Coverage shall include everything within the construction limits as identified on the Contract Drawings.
- B. Include coverage driveways, sidewalks, curbs, ditches (to show drainage patterns), street (as full width as possible), landscaping, trees, shrubs, culverts, catch basins, retaining walls, headwalls, fences, visible utilities, and building exteriors within the zones of influence. Buildings should be identified visibly when possible.
- C. Properly identify all photographs by number, date, locations and project name.

3.3 PERIODIC CONSTRUCTION PHOTOGRAPHS

- A. Take photographs bi-weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.

3.4 FINAL COMPLETION CONSTRUCTION PHOTOGRAPHS

- A. Take color photographs after date of Substantial Completion for submission as project record documents. Select vantage points to show status of construction and progress since last photographs were taken.

END OF SECTION

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Definitions.
- B. Submittal procedures.
- C. Construction progress schedules.
- D. Product data.
- E. Shop Drawings.
- F. Samples.
- G. Other submittals.
- H. Test reports.
- I. Certificates.
- J. Manufacturer's instructions.
- K. Manufacturer's field reports.
- L. Contractor review.
- M. Engineer review.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Engineer's responsive action.
- B. Informational Submittals: Written and graphic information and physical Samples that do not require Engineer's responsive action. Submittals may be rejected for not complying with requirements.

1.3 SUBMITTAL PROCEDURES

- A. Transmit each submittal with Engineer accepted form.
- B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.

- C. Identify: Project, Contractor, Subcontractor and supplier, pertinent Drawing and detail number, and Specification Section number appropriate to submittal.
 - D. Apply Contractor's stamp, signed or initialed, certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is according to requirements of the Work and Contract Documents.
 - E. Schedule submittals to expedite Project, and deliver to Engineer at business address. Coordinate submission of related items.
 - F. For each submittal for review, allow fifteen (15) days excluding delivery time to and from Contractor.
 - G. Identify variations in Contract Documents and product or system limitations that may be detrimental to successful performance of completed Work.
 - H. Allow space on submittals for Contractor and Engineer review stamps.
 - I. When revised for resubmission, identify changes made since previous submission.
 - J. The Engineer's approval of the Contractor's submittal is for general conformance with the design concept only. Although the Engineer may review submittals in more or less detail, such reviewing is an effort to discover errors and omission in the Contractor's submittals and to safeguard the Owner from unnecessary costs and delays resulting from errors or omissions in the Contractor's submittals. The Engineer's review shall in no way relieve the Contractor of his obligation and responsibility to coordinate the Work and plan the details of the Work or to relieve him of his responsibility in fulfilling the purpose and intent of the Contract. Review by the Engineer shall not be construed as placing on him or on the Owner any responsibility for the accuracy, proper fit, functioning or performance of any phase of the Work included in the Contract.
 - K. For all re-submittals except for the first, Engineer and Engineer's consultants will record manhours required for review of the re-submittal. At the discretion of the Owner, Contractor may be charged for review of such repeat re-submittals at Engineer's (and Engineer's consultant's) current hourly rates. Charges for repeat re-submittals will be subtracted from Contractor's next progress payment.
 - L. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
 - M. Submittals not requested will not be recognized nor processed.
 - N. Incomplete Submittals: Engineer will not review. Complete submittals for each item are required. Delays resulting from incomplete submittals are not the responsibility of /Engineer.
- 1.4 CONSTRUCTION PROGRESS SCHEDULES
- A. Submit initial schedule in duplicate within twenty (20) days after the Notice to Proceed as per Section 013216 Construction Progress Schedule.

- B. Review and resubmit as required.
- C. Submit revised schedules with each Application for Payment, identifying changes since previous version.
- D. Submit a CPM construction schedule with separate task for each major portion of Work or operation identifying first work day of each week.
- E. Show complete sequence of construction by activity, identifying Work of separate stage and other logically grouped activities. Indicate the early and late start, early and late finish, float dates and duration.
- F. Indicate estimated percentage of completion for each item of Work at each submittal.
- G. Indicate submittal dates required for shop drawings, product data, samples and product delivery dates, including those furnished by Owner and required by Allowances.

1.5 PRODUCT DATA

- A. Action Submittal: Submit to Engineer for review for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.
- B. Submit electronic submittals via email as PDF electronic files.
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. After review, produce copies and distribute according to "Submittal Procedures" Article and for record documents described in Section 017000 - Execution and Closeout Requirements.

1.6 SHOP DRAWINGS

- A. Shop Drawings: Action Submittal: Submit to Engineer for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.
- B. When required by individual Specification Sections, provide Shop Drawings signed and sealed by a professional Engineer responsible for designing components shown on Shop Drawings.
 - 1. Include signed and sealed calculations to support design.
 - 2. Submit Shop Drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
 - 3. Make revisions and provide additional information when required by authorities having jurisdiction.
- C. Submit electronic submittal via email as PDF.
- D. After review, produce copies and distribute according to "Submittal Procedures" Article and for record documents described in Section 017000 - Execution and Closeout Requirements.

1.7 SAMPLES

- A. Samples: Action Submittal: Submit to Engineer for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.
- B. Samples for Selection as Specified in Product Sections:
 - 1. Submit to Engineer for aesthetic, color, and finish selection.
 - 2. Submit Samples of finishes, textures, and patterns for Engineer selection.
- C. Submit Samples to illustrate functional and aesthetic characteristics of products, with integral parts and attachment devices. Coordinate Sample submittals for interfacing work.
- D. Include identification on each Sample, with full Project information.
- E. Submit number of Samples specified in individual Specification Sections; Engineer will retain one Sample.
- F. Reviewed Samples that may be used in the Work are indicated in individual Specification Sections.
- G. Samples will not be used for testing purposes unless specifically stated in Specification Section.
- H. After review, produce copies and distribute according to "Submittal Procedures" Article and for record documents described in Section 017000 - Execution and Closeout Requirements.

1.8 OTHER SUBMITTALS

- A. Closeout Submittals: Comply with Section 017000 - Execution and Closeout Requirements.
- B. Informational Submittal: Submit data for Architect/Engineer's knowledge as Contract administrator or for Owner.
- C. Submit information for assessing conformance with information given and design concept expressed in Contract Documents.

1.9 TEST REPORTS

- A. Informational Submittal: Submit reports for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit test reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

1.10 CERTIFICATES

- A. Informational Submittal: Submit certification by manufacturer, installation/application Subcontractor, or Contractor to Engineer, in quantities specified for Product Data.

- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product but must be acceptable to Engineer.

1.11 MANUFACTURER'S INSTRUCTIONS

- A. Informational Submittal: Submit manufacturer's installation instructions for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit printed instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing, to Engineer in quantities specified for Product Data.
- C. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.12 MANUFACTURER'S FIELD REPORTS

- A. Informational Submittal: Submit reports for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit report within 30 days of observation to Engineer for information. Illegible or incomplete reports will be rejected.
- C. Submit reports for information for assessing conformance with information given and design concept expressed in Contract Documents.
- D. Manufacturer's Field Reports shall include, as a minimum, the following information:
 - 1. Name of Field Service Representative.
 - 2. Date(s) of site visit.
 - 3. Duration of site visit (actual man-hours on the site).
 - 4. Name of equipment manufacturer.
 - 5. Complete list of equipment inspected and/or started up.
 - 6. Description of any problems, unfinished work, required changes, etc. remaining at the conclusion of the site visit.
 - 7. Statement that the installation is or is not acceptable to the equipment manufacturer.
 - 8. If installation is not acceptable, provide narrative, sketches, itemized list, etc. of what is required to make installation acceptable.
 - 9. Statement that equipment is or is not operating properly according to the equipment manufacturer.
 - 10. If equipment is not operating properly, provide narrative on what is required to make equipment operate properly.

1.13 CONTRACTOR REVIEW

- A. Review for compliance with Contract Documents and approve submittals before transmitting to Engineer.

B. Contractor: Responsible for:

1. Determination and verification of materials including manufacturer's catalog numbers.
2. Determination and verification of field measurements and field construction criteria.
3. Checking and coordinating information in submittal with requirements of Work and of Contract Documents.
4. Determination of accuracy and completeness of dimensions and quantities.
5. Confirmation and coordination of dimensions and field conditions at Site.
6. Construction means, techniques, sequences, and procedures.
7. Safety precautions.
8. Coordination and performance of Work of all trades.

C. Stamp, sign or initial, and date each submittal to certify compliance with requirements of Contract Documents.

D. Do not fabricate products or begin Work for which submittals are required until approved submittals have been received from Architect/Engineer.

1.14 ENGINEER REVIEW

- A. Do not make "mass submittals" to Engineer. "Mass submittals" are defined as six or more submittals or items in one day or 20 or more submittals or items in one week. If "mass submittals" are received, Engineer's review time stated above will be extended as necessary to perform proper review. Engineer will review "mass submittals" based on priority determined by Engineer after consultation with Owner and Contractor.
- B. Informational submittals and other similar data are for Engineer's information, do not require Engineer's responsive action, and will not be reviewed or returned with comment.
- C. Submittals made by Contractor that are not required by Contract Documents may be returned without action.
- D. Submittal approval does not authorize changes to Contract requirements unless accompanied by Change Order.
- E. Owner may withhold monies due to Contractor to cover additional costs beyond the second submittal review.

PART 2 - PRODUCTS Not Used

PART 3 - EXECUTION Not Used

END OF SECTION

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Quality control.
- B. Tolerances.
- C. References.
- D. Mockup requirements.
- E. Testing and inspection services.
- F. Manufacturers' field services.

1.2 QUALITY CONTROL

- A. Monitor quality control over suppliers, manufacturers, products, services, Site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with specified standards as the minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- C. Comply with manufacturer's installation instructions, including each step in sequence.
- D. Should manufacturer's instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- E. Perform Work using persons qualified to produce required and specified quality.
- F. Products, materials, and equipment may be subject to inspection by Engineer at place of manufacture or fabrication. Such inspections shall not relieve Contractor of complying with requirements of Contract Documents.
- G. Supervise performance of Work in such manner and by such means to ensure that Work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during construction period.
- H. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion and disfigurement.

1.3 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' recommended tolerances and tolerance requirements in reference standards. When such tolerances conflict with Contract Documents, request clarification from Engineer/Engineer before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.4 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current as of date of Contract Documents except where specific date is established by code.
- C. Obtain copies of standards and maintain on Site when required by product Specification Sections.
- D. When requirements of indicated reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- E. Neither contractual relationships, duties, or responsibilities of parties in Contract nor those of Engineer shall be altered from Contract Documents by mention or inference in reference documents.

1.5 MOCK-UP REQUIREMENTS

- A. Tests will be performed under provisions identified in this Section and identified in individual product Specification Sections.
- B. Assemble and erect specified or indicated items with specified or indicated attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mockups shall be comparison standard for remaining Work.
- D. Where mockup has been accepted by Engineer and is specified in product Specification Sections to be removed, remove mockup and clear area when directed to do so by Engineer.

1.6 TESTING AND INSPECTION SERVICES

- A. Testing, inspections, and source quality control may occur on or off Project Site. Perform off-Site testing as required by Engineer or Owner.

- B. Reports shall be submitted by independent firm to Engineer, Contractor, and authorities having jurisdiction, in duplicate, indicating observations and results of tests and compliance or noncompliance with Contract Documents.
 - 1. Submit final report indicating correction of Work previously reported as noncompliant.
- C. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
 - 1. Notify Engineer and independent firm twenty-four (24) hours before expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional Samples and tests required for Contractor's use.
- D. Employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work according to requirements of Contract Documents.
- E. Retesting or re-inspection required because of nonconformance with specified or indicated requirements shall be performed by same independent firm on instructions from Engineer. Payment for retesting or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum/Price.
- F. Agency Responsibilities:
 - 1. Test Samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at Site. Cooperate with Engineer and Contractor in performance of services.
 - 3. Perform indicated sampling and testing of products according to specified standards.
 - 4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify Engineer and Contractor of observed irregularities or nonconformance of Work or products.
 - 6. Perform additional tests required by Engineer.
 - 7. Attend preconstruction meetings and progress meetings when requested.
- G. Agency Reports: After each test, promptly submit two (2) copies of report to Engineer, Contractor, and authorities having jurisdiction. When requested by Engineer, provide interpretation of test results. Include the following:
 - 1. Date issued.
 - 2. Project title and number.
 - 3. Name of inspector.
 - 4. Date and time of sampling or inspection.
 - 5. Identification of product and Specification Section.
 - 6. Location in Project.
 - 7. Type of inspection or test.
 - 8. Date of test.
 - 9. Results of tests.
 - 10. Conformance with Contract Documents.
- H. Limits on Testing Authority:

1. Agency or laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Agency or laboratory may not approve or accept any portion of the Work.
3. Agency or laboratory may not assume duties of Contractor.
4. Agency or laboratory has no authority to stop the Work.

1.7 MANUFACTURER'S FIELD SERVICES

- A. When specified in individual Specification Sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe Site conditions, conditions of surfaces and installation, quality of workmanship, startup of equipment, testing, adjusting, and balancing of equipment as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of field service representative to Engineer thirty (30) days in advance of required observations. Field service representative subject to approval of Engineer.
- C. Report observations and Site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturer's written instructions.
- D. Refer to Section 013300 - Submittal Procedures, "Manufacturer's Field Reports" Article.

PART 2 - PRODUCTS Not Used

PART 3 - EXECUTION Not Used

END OF SECTION

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.2 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Engineer, testing agencies, and authorities having jurisdiction.

1.3 INFORMATIONAL SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

1.4 QUALITY ASSURANCE

- A. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.5 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized-steel pipe posts;

minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts.

- B. Portable Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized-steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails. Provide galvanized-steel bases for supporting posts.

2.2 TEMPORARY FACILITIES

- A. Storage and Fabrication Sheds: Provide storage facilities as required for material storage for construction operations.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Water Service: Contractor to provide their own potable water. Should a fire hydrant be used as a water source, the Contractor shall coordinate in writing and provide documentation of the approval to the Owner.
- C. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- D. Electric Power Service: Contractor to provide their own power source, as required to complete work.

- E. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions, as required to perform work under poor lighting conditions.

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:

- 1. Maintain support facilities until Engineer schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

- B. Traffic Controls: Comply with requirements of authorities having jurisdiction.

- 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
- 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- 3. As required for site access, the Contractor shall establish any required traffic control in accordance with PennDOT Publication 213.

- C. Parking: Use designated areas of Owner's existing parking areas for construction personnel.

- D. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.

- 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
- 2. Remove snow and ice as required to minimize accumulations.
- 3. Any pumps used in dewatering shall be connected to a sediment filter bag for filtration prior to being discharged.

- E. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.

- 1. Identification Signs: Provide Project identification signs as indicated on Drawings.
- 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 - a. Contractor to furnish and install signage per Grant Agreement.
 - b. Sign shall be 4' by 8' and contain the names of the Project and Owner, in addition to the Logo of the Contractor, Owner, Engineer, and Chester County Department of Community Development.
- 3. Maintain and touchup signs so they are legible at all times.

- F. Waste Disposal Facilities: Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- C. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings.
- D. Tree and Plant Protection: Comply with requirements specified in Section 015639 "Temporary Tree and Plant Protection."
- E. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by use of the designated entrances.
 - 1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
- F. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses.
 - 1. Prohibit smoking in construction areas.
 - 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 - 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
- C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.

2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 015639 - TEMPORARY TREE AND PLANT PROTECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general protection and pruning of existing trees and plants that are affected by execution of the Work, whether temporary or permanent construction.

1.2 DEFINITIONS

- A. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.4 INFORMATIONAL SUBMITTALS

- A. Existing Conditions: Documentation of existing trees and plantings indicated to remain, which establishes preconstruction conditions that might be misconstrued as damage caused by construction activities.

1.5 FIELD CONDITIONS

- A. The following practices are prohibited within protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Moving or parking vehicles or equipment.
 - 3. Foot traffic.
 - 4. Erection of sheds or structures.
 - 5. Impoundment of water.
 - 6. Excavation or other digging unless otherwise indicated.
 - 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- B. Do not direct vehicle or equipment exhaust toward protection zones.
- C. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones and organic mulch.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Backfill Soil: Stockpiled soil mixed with planting soil of suitable moisture content and granular texture for placing around tree; free of stones, roots, plants, sod, clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth.
 - 1. Mixture: Well-blended mix of stockpiled soil.
- B. Protection-Zone Fencing: Fencing fixed in position and meeting the following requirements:
 - 1. Plastic Protection-Zone Fencing: Plastic construction fencing constructed of high-density extruded and stretched polyethylene fabric with 2-inch (50-mm) maximum opening in pattern and supported by tubular or T-shape galvanized-steel posts spaced not more than 96 inches (2400 mm) apart. High-visibility orange color.
 - a. Height: 48 inches (1200 mm).
- C. Protection-Zone Signage: Shop-fabricated, rigid plastic or metal sheet with attachment holes prepunched and reinforced; legibly printed with nonfading lettering.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Erosion and Sedimentation Control: Examine the site to verify that temporary erosion- and sedimentation-control measures are in place. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.

3.2 PREPARATION

- A. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.

3.3 PROTECTION ZONES

- A. Protection-Zone Fencing: Install protection-zone fencing along edges of protection zones in a manner that will prevent people from easily entering protected areas except by entrance gates.
 - 1. Posts: Set or drive posts into ground one-third the total height of the fence without concrete footings. Where a post is located on existing paving or concrete to remain, provide appropriate means of post support acceptable to Engineer.
- B. Protection-Zone Signage: Install protection-zone signage in visibly prominent locations in a manner approved by Engineer.

- C. Maintain protection zones free of weeds and trash.
- D. Maintain protection-zone fencing and signage in good condition as acceptable to Engineer and remove when construction operations are complete and equipment has been removed from the site.

3.4 EXCAVATION

- A. General: Excavate at edge of protection zones and for trenches indicated within protection zones according to requirements in Section 312000 "Earth Moving" unless otherwise indicated.
- B. Do not allow exposed roots to dry out before placing permanent backfill.

3.5 ROOT PRUNING

- A. Any required root pruning shall be coordinated with the City Arborist.
- B. Prune tree roots that are affected by temporary and permanent construction. Prune roots as follows:
 1. Cut roots manually by digging a trench and cutting exposed roots with sharp pruning instruments; do not break, tear, chop, or slant the cuts. Do not use a backhoe or other equipment that rips, tears, or pulls roots.
 2. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
 3. Cover exposed roots with burlap and water regularly.
 4. Backfill as soon as possible according to requirements in Section 312000 "Earth Moving."
- C. Root Pruning within Protection Zone: Clear and excavate by hand or with air spade to the depth of the required excavation to minimize damage to tree root systems. If excavating by hand, use narrow-tine spading forks to comb soil to expose roots. Cleanly cut roots as close to excavation as possible.

3.6 CROWN PRUNING

- A. Any required crown pruning shall be coordinated with the City Arborist.
- B. Prune branches that are affected by temporary and permanent construction. Prune branches as directed by arborist.
 1. Prune to remove only broken, dying, or dead branches unless otherwise indicated. Do not prune for shape unless otherwise indicated.
 2. Do not remove or reduce living branches to compensate for root loss caused by damaging or cutting root system.
 3. Pruning Standards: Prune trees according to ANSI A300 (Part 1).
- C. Cut branches with sharp pruning instruments; do not break or chop.

- D. Do not paint or apply sealants to wounds.
- E. Chip removed branches and dispose of off-site.

3.7 REGRADING

- A. Lowering Grade: Where new finish grade is indicated below existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.
- B. Raising Grade: Where new finish grade is indicated above existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.
- C. Minor Fill within Protection Zone: Where existing grade is 2 inches (50 mm) or less below elevation of finish grade, fill with backfill soil. Place backfill soil in a single uncompacted layer and hand grade to required finish elevations.

3.8 FIELD QUALITY CONTROL

- A. Inspections: Engage a qualified arborist to direct plant-protection measures in the vicinity of trees, shrubs, and other vegetation indicated to remain and to prepare inspection reports.

3.9 REPAIR AND REPLACEMENT

- A. General: Repair or replace trees, shrubs, and other vegetation indicated to remain or to be relocated that are damaged by construction operations, in a manner approved by the City and Engineer.
 - 1. Perform repairs of damaged trunks, branches, and roots within 24 hours according to arborist's written instructions.
 - 2. Replace trees and other plants that cannot be repaired and restored to full-growth status, as determined by Engineer.

3.10 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove excess excavated material, displaced trees, trash, and debris and legally dispose of them off Owner's property.

END OF SECTION 015639

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Product options.

1.2 PRODUCTS

- A. Products means new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying, and erection of the Work. Products may also include existing materials or components required for reuse.
- B. At minimum, comply with specified requirements and reference standards.
- C. Specified products define standard of quality, type, function, dimension, appearance, and performance required.
- D. Furnish products of qualified manufacturers that are suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise. Confirm that manufacturer's production capacity can provide sufficient product, on time, to meet Project requirements.
- E. Domestic Products: Except where specified otherwise, domestic products are required and interpreted to mean products mined, manufactured, fabricated, or produced in United States or its territories.
- F. Do not use materials and equipment removed from existing premises except as specifically permitted by Contract Documents.
- G. Provide interchangeable components from same manufacturer for components being replaced.

1.3 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products according to manufacturer's instructions.
- B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.

- C. Provide equipment and personnel to handle products; use methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Deliver products to the site in an undamaged condition. Exercise care when off-loading equipment to prevent damage.
- B. Inspect products on delivery. Submit claims for transportation damage and replace damaged, defective, or deficient items.
- C. Store and protect products according to manufacturer's instructions.
- D. Store products with seals and labels intact and legible.
- E. Store sensitive products in weathertight, climate-controlled enclosures in an environment suitable to product.
- F. For exterior storage of fabricated products, place products on sloped supports aboveground.
- G. Provide bonded off-Site storage and protection when Site does not permit on-Site storage or protection.
- H. Cover products subject to deterioration with impervious sheet covering.
- I. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- J. Provide equipment and personnel to store products; use methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.5 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Products complying with specified reference standards or description.
- B. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit Request for Substitution for any manufacturer not named, according to Section 012500 - Substitution Procedures.

PART 2 - PRODUCTS Not Used

PART 3 - EXECUTION Not Used

END OF SECTION

SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Disposing of nonhazardous demolition and construction waste.
- B. Related Requirements:
 - 1. Section 024119 "Selective Demolition" for disposition of waste resulting from partial demolition of buildings, structures, and site improvements.
 - 2. Section 311000 "Site Clearing" for disposition of waste resulting from site clearing and removal of above- and below-grade improvements.

1.2 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.3 INFORMATIONAL SUBMITTALS

- A. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 IMPLEMENTATION

- A. General: Provide handling, containers, storage, signage, transportation, and other items as required during the entire duration of the Contract.
- B. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with Section 015000 "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

3.2 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Remove waste materials from Owner's property and legally dispose of them.

END OF SECTION 017419

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.
- B. Related Requirements:
 - 1. Section 013233 "Photographic Documentation" for submitting final completion construction photographic documentation.

1.2 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.3 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest control inspection.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.5 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 - 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Engineer. Label with manufacturer's name and model number where applicable.
 - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Engineer's signature for receipt of submittals.
 - 5. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Advise Owner of pending insurance changeover requirements.
 - 2. Perform preventive maintenance on equipment used prior to Substantial Completion.
 - 3. Participate with Owner in conducting inspection and walkthrough.
 - 4. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - 5. Complete final cleaning requirements.
 - 6. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Engineer, that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for final completion.

1.6 FINAL COMPLETION PROCEDURES

- A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
 1. Certified List of Incomplete Items: Submit certified copy of Engineer's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Engineer. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 2. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 3. Submit pest-control final inspection report and warranty.
- B. Inspection: Submit a written request for final inspection to determine acceptance. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.7 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 1. Organize list of spaces in sequential order.
 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 3. Submit list of incomplete items in the following format:
 - a. PDF electronic file. Engineer will return annotated copy.

1.8 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Engineer for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper.
 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
 4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.

- e. Clean exposed exterior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - f. Remove labels that are not permanent.
 - g. Leave Project clean and ready for occupancy.
- C. Pest Control: Comply with pest control requirements in Section 015000 "Temporary Facilities and Controls." Prepare written report.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
 - 1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
 - 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
 - 3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.

END OF SECTION 017700

SECTION 024119 – SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Contract Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Demolition and removal of selected site elements.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner.
- C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- B. Items identified in this section, or other items of interest or value to Owner that may be uncovered during demolition shall remain the property of Owner.
 - 1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.5 INFORMATIONAL SUBMITTALS

- A. Coordinate qualification data with qualification requirements in Section 014000 "Quality Requirements" and as may be supplemented in "Quality Assurance" Article.
- B. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and, for noise control. Indicate proposed locations and construction of barriers.
- C. Schedule of Selective Demolition Activities: Indicate the following:

1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
2. Means of protection for existing items to remain, items to be removed and salvaged, or items to be removed and reinstalled.

D. Pre-demolition Video: Submit before Work begins.

1.6 CLOSEOUT SUBMITTALS

- A. Inventory: Submit a list of items that have been removed and salvaged.
- B. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.7 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI A10.6 and NFPA 241.

1.8 PROJECT CONDITIONS

- A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- B. Notify Engineer of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: Hazardous materials are not present in buildings and structures to be selectively demolished.
- D. Storage or sale of removed items or materials on-site is not permitted.

PART 2 - PRODUCTS – Not Used

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- B. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Engineer.

- C. Survey of Existing Conditions: Record existing conditions by use of preconstruction videotapes.
 - 1. Comply with requirements specified in Section 013233 "Photographic Documentation."
 - 2. Inventory and record the condition of items to be removed and salvaged. Provide photographs or video of conditions that might be misconstrued as damage caused by salvage operations.

3.2 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Section 015000 "Temporary Facilities and Controls."
- B. Temporary Shoring: Provide and maintain shoring, bracing, thrust restraint, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports when required during progress of selective demolition.

3.3 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - 3. Do not use cutting torches until work area is cleared of flammable materials. Maintain portable fire-suppression devices during flame-cutting operations.
 - 4. Maintain adequate ventilation when using cutting torches.
 - 5. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 - 6. Dispose of demolished items and materials promptly.
- B. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Engineer, items may be removed to a suitable, protected storage location during selective demolition, cleaned, and reinstalled in their original locations after selective demolition operations are complete.

3.4 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

1. Do not allow demolished materials to accumulate on-site.
 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.
- 3.5 CLEANING
- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.
- 3.6 SELECTIVE DEMOLITION SCHEDULE
- A. Existing Items to Be Removed: See Contract Drawings.
- B. Existing Items to Be Removed and Salvaged: See Contract Drawings. Owner shall coordinate with the City regarding any existing benches or picnic tables to be kept by the Owner.
- C. Existing Items to Be Removed and Reinstalled: See Contract Drawings.
- D. Existing Items to Remain: See Contract Drawings.

END OF SECTION

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.
- B. Related Requirements:
 - 1. Section 312000 "Earth Moving" for drainage fill under slabs-on-grade.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Design Mixtures: For each concrete mixture.
- C. Steel Reinforcement Shop Drawings: Placing Drawings that detail fabrication, bending, and placement.

1.3 INFORMATIONAL SUBMITTALS

- A. Material certificates.
- B. Material test reports.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
- B. Testing Agency Qualifications: An independent agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.

1.5 FIELD CONDITIONS

- A. Cold-Weather Placement: Comply with ACI 306.1.
 - 1. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
- B. Hot-Weather Placement: Comply with ACI 301 (ACI 301M).

PART 2 - PRODUCTS

2.1 CONCRETE, GENERAL

- A. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
 - 1. ACI 301 (ACI 301M).
 - 2. ACI 117 (ACI 117M).

2.2 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
- B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

2.3 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.
- B. Plain-Steel Welded-Wire Reinforcement: ASTM A 1064/A 1064M, plain, fabricated from as-drawn steel wire into flat sheets.
- C. Deformed-Steel Welded-Wire Reinforcement: ASTM A 1064/A 1064M, flat sheet.
- D. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded-wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice."

2.4 CONCRETE MATERIALS

- A. Cementitious Materials:
 - 1. Portland Cement: ASTM C 150/C 150M, Type I/II, white.
 - 2. Fly Ash: ASTM C 618, Class F or C.
 - 3. Slag Cement: ASTM C 989/C 989M, Grade 100 or 120.
- B. Normal-Weight Aggregates: ASTM C 33/C 33M, graded.
 - 1. Maximum Coarse-Aggregate Size: 1 inch (25 mm) nominal.
- C. Air-Entraining Admixture: ASTM C 260/C 260M.
- D. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures and that do not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.

1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
2. Retarding Admixture: ASTM C 494/C 494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

E. Water: ASTM C 94/C 94M.

2.5 WATERSTOPS

- A. Flexible Rubber Waterstops: CE CRD-C 513,[with factory-installed metal eyelets,] for embedding in concrete to prevent passage of fluids through joints. Factory fabricate corners, intersections, and directional changes.
- B. Chemically Resistant Flexible Waterstops: Thermoplastic elastomer rubber waterstops[with factory-installed metal eyelets], for embedding in concrete to prevent passage of fluids through joints; resistant to oils, solvents, and chemicals. Factory fabricate corners, intersections, and directional changes.
- C. Flexible PVC Waterstops: CE CRD-C 572,[with factory-installed metal eyelets,] for embedding in concrete to prevent passage of fluids through joints. Factory fabricate corners, intersections, and directional changes.
- D. Self-Expanding Butyl Strip Waterstops: Manufactured rectangular or trapezoidal strip, butyl rubber with sodium bentonite or other hydrophilic polymers, for adhesive bonding to concrete, 3/4 by 1 inch (19 by 25 mm).
- E. Self-Expanding Rubber Strip Waterstops: Manufactured rectangular or trapezoidal strip, bentonite-free hydrophilic polymer-modified chloroprene rubber, for adhesive bonding to concrete, 3/8 by 3/4 inch (10 by 19 mm).

2.6 VAPOR RETARDERS

- A. Sheet Vapor Retarder: Polyethylene sheet, ASTM D 4397, not less than 10 mils (0.25 mm) thick.

2.7 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. (305 g/sq. m) when dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.

2.8 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber or ASTM D 1752, cork or self-expanding cork.

2.9 CONCRETE MIXTURES, GENERAL

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301 (ACI 301M).
- B. Admixtures: Use admixtures according to manufacturer's written instructions.
 - 1. Use water-reducing, high-range water-reducing, or plasticizing admixture in concrete, as required, for placement and workability.
 - 2. Use water-reducing and -retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.

2.10 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M and ASTM C 1116/C 1116M, and furnish batch ticket information.
 - 1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK INSTALLATION

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301 (ACI 301M), to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117 (ACI 117M).
- C. Chamfer exterior corners and edges of permanently exposed concrete.

3.2 EMBEDDED ITEM INSTALLATION

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

3.3 VAPOR-RETARDER INSTALLATION

- A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder according to ASTM E 1643 and manufacturer's written instructions.
 - 1. Lap joints 6 inches (150 mm) and seal with manufacturer's recommended tape.

3.4 STEEL REINFORCEMENT INSTALLATION

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
 - 1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

3.5 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Engineer.
- C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:
 - 1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch (3.2 mm). Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
 - 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- (3.2-mm-) wide joints into concrete when cutting action does not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.
- D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

3.6 WATERSTOP INSTALLATION

- A. Waterstops: Install in construction joints and at other locations indicated, according to manufacturer's written instructions.

3.7 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections are completed.

- B. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.

- 1. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301 (ACI 301M).

3.8 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.

3.9 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 (ACI 301M) for hot-weather protection during curing.

- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

- C. Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing for remainder of curing period.

- D. Cure concrete according to ACI 308.1, by one or a combination of the following methods:

- 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days.
 - 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches (300 mm), and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period, using cover material and waterproof tape.
 - 3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
 - a. Removal: After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer.
 - 4. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written

instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

3.10 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Engineer. Remove and replace concrete that cannot be repaired and patched to Engineer's approval.

3.11 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a special inspector to perform field tests and inspections and prepare test reports.

END OF SECTION 033000

SECTION 129300 - SITE FURNISHINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes the furnishing of benches and picnic tables.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.3 CLOSEOUT SUBMITTALS

- A. Maintenance data.

PART 2 - PRODUCTS

2.1 ADA accessible picnic table: Global Industrial 8 ft. ADA Outdoor Steel Picnic Table – Expanded Metal – Black, or approved equal.

- A. Frame: Steel.
- B. Seat:
 - 1. Material:
 - a. Painted Steel: Expanded metal
 - 2. Seat Surface Shape: Flat.
 - 3. Arms: None.
 - 4. Seating Configuration: as indicated.
 - a. Straight shape.
- C. Steel Finish: Galvanized and color coated.
 - 1. Color: Black.

2.2 ADA accessible bench: Global Industrial 6 ft. Outdoor Steel Slat Park Bench - Black

- A. Frame: Steel.
- B. Seat and Back:

1. Material:
 - a. Painted Steel: Evenly spaced, parallel flat straps or bars.
 2. Seat Surface Shape: Flat.
 3. Arms: Two, one at each end.
 - a. Arm Material: Match frame.
 4. Seating Configuration: as indicated.
 - a. Straight shape.
- C. Steel Finish: Galvanized and color coated.
1. Color: Black.

2.3 MATERIALS

- A. Steel and Iron: Free of surface blemishes and complying with the following:
1. Plates, Shapes, and Bars: ASTM A 36/A 36M.
 2. Steel Pipe: Standard-weight steel pipe complying with ASTM A 53/A 53M, or electric-resistance-welded pipe complying with ASTM A 135/A 135M.
 3. Tubing: Cold-formed steel tubing complying with ASTM A 500/A 500M.
 4. Mechanical Tubing: Cold-rolled, electric-resistance-welded carbon or alloy steel tubing complying with ASTM A 513, or steel tubing fabricated from steel complying with ASTM A 1011/A 1011M and complying with dimensional tolerances in ASTM A 500/A 500M; zinc coated internally and externally.
 5. Sheet: Commercial steel sheet complying with ASTM A 1011/A 1011M.
 6. Perforated Metal: From steel sheet not less than 0.075-inch (1.9-mm) nominal thickness; manufacturer's standard perforation pattern.
 7. Expanded Metal: Carbon-steel sheets, deburred after expansion, and complying with ASTM F 1267.
 8. Malleable-Iron Castings: ASTM A 47/A 47M, grade as recommended by fabricator for type of use intended.
 9. Gray-Iron Castings: ASTM A 48/A 48M, Class 200.
- B. Stainless Steel: Free of surface blemishes and complying with the following:
1. Sheet, Strip, Plate, and Flat Bars: ASTM A 666.
 2. Pipe: Schedule 40 steel pipe complying with ASTM A 312/A 312M.
 3. Tubing: ASTM A 554.
- C. Plastic: Color impregnated, color and UV-light stabilized, and mold resistant.
1. Polyethylene: Fabricated from virgin plastic HDPE resin.
- D. Anchors, Fasteners, Fittings, and Hardware: Stainless steel; commercial quality, tamperproof, vandal and theft resistant.

1. Angle Anchors: For inconspicuously bolting legs of site furnishings to on-grade substrate; extent as indicated.
 2. Antitheft Hold-Down Brackets: For securing site furnishings to substrate; two per unit extent as indicated on Drawings.
- E. Galvanizing: Where indicated for steel and iron components, provide the following protective zinc coating applied to components after fabrication:
1. Zinc-Coated Tubing: External, zinc with organic overcoat, consisting of a minimum of 0.9 oz./sq. ft. (0.27 kg/sq. m) of zinc after welding, a chromate conversion coating, and a clear, polymer film. Internal, same as external or consisting of 81 percent zinc pigmented coating, not less than 0.3 mil (0.0076 mm) thick.
 2. Hot-Dip Galvanizing: According to ASTM A 123/A 123M, ASTM A 153/A 153M, or ASTM A 924/A 924M.

2.4 FABRICATION

- A. Metal Components: Form to required shapes and sizes with true, consistent curves, lines, and angles. Separate metals from dissimilar materials to prevent electrolytic action.
- B. Welded Connections: Weld connections continuously. Weld solid members with full-length, full-penetration welds and hollow members with full-circumference welds. At exposed connections, finish surfaces smooth and blended so no roughness or unevenness shows after finishing and welded surface matches contours of adjoining surfaces.
- C. Pipes and Tubes: Form simple and compound curves by bending members in jigs to produce uniform curvature for each repetitive configuration required; maintain cylindrical cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of handrail and railing components.
- D. Exposed Surfaces: Polished, sanded, or otherwise finished; all surfaces smooth, free of burrs, barbs, splinters, and sharpness; all edges and ends rolled, rounded, or capped.
- E. Factory Assembly: Assemble components in the factory to greatest extent possible to minimize field assembly. Clearly mark units for assembly in the field.

2.5 ALUMINUM FINISHES

- A. Baked-Enamel, Powder-Coat Finish: Manufacturer's standard, baked, polyester, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.

2.6 STEEL AND GALVANIZED-STEEL FINISHES

- A. Baked-Enamel, Powder-Coat Finish: Manufacturer's standard, baked, polyester, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.

- B. PVC Finish: Manufacturer's standard, UV-light stabilized, mold-resistant, slip-resistant, matte-textured, dipped or sprayed-on, PVC-plastisol finish, with flame retardant added; complying with coating manufacturer's written instructions for pretreatment, application, and minimum dry film thickness.

2.7 STAINLESS-STEEL FINISHES

- A. Surface Preparation: Remove tool and die marks and stretch lines, or blend into finish.
- B. Polished Finishes: Grind and polish surfaces to produce uniform finish, free of cross scratches.
 - 1. Run directional finishes with long dimension of each piece.
 - 2. Directional Satin Finish: No 4.
 - 3. Dull Satin Finish: No. 6.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Comply with manufacturer's written installation instructions unless more stringent requirements are indicated. Complete field assembly of site furnishings where required.
- B. Unless otherwise indicated, install site furnishings after landscaping and paving have been completed.
- C. Install site furnishings level, plumb, true, and securely anchored at locations indicated on Drawings.

END OF SECTION 129300

SECTION 311000 - SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Protecting existing vegetation to remain.
2. Removing existing vegetation.
3. Clearing and grubbing.
4. Stripping and stockpiling topsoil.
5. Removing above- and below-grade site improvements.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for temporary erosion- and sedimentation-control measures.

C. Related Requirements:

1.3 DEFINITIONS

- A. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile, typified by less than 1 percent organic matter and few soil organisms.
- B. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil," but in disturbed areas such as urban environments, the surface soil can be subsoil.
- C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow.
- D. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow. Its appearance is generally friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects larger than 2 inches (50 mm) in diameter; and free of weeds, roots, toxic materials, or other nonsoil materials.
- E. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.

- F. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and indicated on Drawings.
- G. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.4 MATERIAL OWNERSHIP

- A. Except for materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.5 INFORMATIONAL SUBMITTALS

- A. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
 - 1. Use sufficiently detailed photographs or video recordings.
 - 2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plant designated to remain.

1.6 QUALITY ASSURANCE

1.7 FIELD CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed trafficways if required by Owner or authorities having jurisdiction.
- B. Utility Locator Service: Notify One Call for area where Project is located before site clearing.
- C. Do not commence site clearing operations until temporary erosion- and sedimentation-control measures are in place.
- D. Soil Stripping, Handling, and Stockpiling: Perform only when the soil is dry or slightly moist.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Section 312000 "Earth Moving."

1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Protect existing site improvements to remain from damage during construction.
 1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.
 1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 2. Grind down stumps and remove roots larger than 3 inches (75 mm) in diameter, obstructions, and debris to a depth of 18 inches (450 mm) below exposed subgrade.
 3. Use only hand methods or air spade for grubbing within protection zones.
 4. Chip removed tree branches and dispose of off-site.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
 1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches (200 mm), and compact each layer to a density equal to adjacent original ground.

3.3 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to depth of 6 inches (150 mm) in a manner to prevent intermingling with underlying subsoil or other waste materials.
 1. Remove subsoil and nonsoil materials from topsoil, including clay lumps, gravel, and other objects larger than 2 inches (50 mm) in diameter; trash, debris, weeds, roots, and other waste materials.
- C. Stockpile topsoil away from edge of excavations without intermixing with subsoil or other materials. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.
 1. Limit height of topsoil stockpiles to 72 inches (1800 mm).
 2. Do not stockpile topsoil within protection zones.

3. Stockpile surplus topsoil to allow for resspreading deeper topsoil.

3.4 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
 1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut along line of existing pavement to remain before removing adjacent existing pavement. Saw-cut faces vertically.
 2. Paint cut ends of steel reinforcement in concrete to remain with two coats of antirust coating, following coating manufacturer's written instructions. Keep paint off surfaces that will remain exposed.

3.5 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.

END OF SECTION 311000

SECTION 312000 - EARTH MOVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Excavating and filling for rough grading the Site.
 - 2. Preparing subgrades for pavements and turf and grasses.
 - 3. Subbase course and base course for asphalt paving.

- B. Related Requirements:

- 1. Section 329200 "Turf and Grasses" for finish grading in turf and grass areas, including preparing and placing planting soil for turf areas.
 - 2. Pennsylvania Department of Transportation Publication 408
 - a. Section 100 – General Provisions
 - b. Section 200 - Earthwork
 - c. Section 300 – Base Courses
 - d. Section 400 – Flexible Pavements
 - e. Section 500 – Rigid Pavements
 - f. Section 600 – Incidental Construction
 - g. Section 700 – Material
 - h. Section 800 – Roadside Development
 - i. Section 900 – Traffic Accommodation and Control

1.3 DEFINITIONS

- A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
 - 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 - 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- B. Base Course: Aggregate layer placed between the subbase course and warm-mix asphalt paving.
- C. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.

- D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
 - E. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.
 - F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
 - 1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by The City. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
 - 2. Bulk Excavation: Excavation more than 10 feet (3 m) in width and more than 30 feet (9 m) in length.
 - 3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by The City. Unauthorized excavation, as well as remedial work directed by The City, shall be without additional compensation.
 - G. Fill: Soil materials used to raise existing grades.
 - H. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material 3/4 cu. yd. (0.57 cu. m) or more in volume that exceed a standard penetration resistance of 100 blows/2 inches (97 blows/50 mm) when tested by a geotechnical testing agency, according to ASTM D 1586.
 - I. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
 - J. Subbase Course: Aggregate layer placed between the subgrade and base course for warm-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
 - K. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
 - L. Utilities: On-site underground pipes, conduits, ducts, and cables as well as underground services within buildings.
- 1.4 INFORMATIONAL SUBMITTALS
- A. Qualification Data: For qualified testing agency.
 - B. Material Test Reports: For each on-site and borrow soil material proposed for fill and backfill as follows:
 - 1. Classification according to ASTM D 2487.

2. Laboratory compaction curve according to ASTM D 698.
3. Must comply with Pennsylvania Department of Transportation Publication 408, Section 200 – Earthwork unless otherwise directed by The City.

1.5 QUALITY ASSURANCE

- A. Geotechnical Testing Agency Qualifications: Qualified according to ASTM E 329 and ASTM D 3740 for testing indicated.

1.6 FIELD CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth-moving operations.
 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.
 3. Must comply with Pennsylvania Department of Transportation Publication 408, Section 900 – Traffic Accommodation and Control unless otherwise directed by The City.
- B. Utility Locator Service: Notify "One Call" for area where Project is located before beginning earth-moving operations.
- C. Do not commence earth-moving operations until traffic control devices necessary for maintenance and protection of traffic are in place.
 1. Must comply with Pennsylvania Department of Transportation Publication 408, Section 900 – Traffic Accommodation and Control unless otherwise directed by The City.
- D. The following practices are prohibited within protection zones:
 1. Storage of construction materials, debris, or excavated material.
 2. Parking vehicles or equipment.
 3. Foot traffic.
 4. Erection of sheds or structures.
 5. Impoundment of water.
 6. Excavation or other digging unless otherwise indicated.
 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- E. Do not direct vehicle or equipment exhaust towards protection zones.
- F. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
 - 1. Must comply with Pennsylvania Department of Transportation Publication 408, Section 205 Borrow Excavation unless otherwise directed by The City.
 - 2. Must comply with Pennsylvania Department of Transportation Publication 408, Section 800 – Roadside Development unless otherwise directed by The City.
- B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D 2487, or a combination of these groups; free of rock or gravel larger than 3 inches (75 mm) in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940/D 2940M; with at least 90 percent passing a 1-1/2-inch (37.5-mm) sieve and not more than 12 percent passing a No. 200 (0.075-mm) sieve.
 - 1. Must comply with Pennsylvania Department of Transportation Publication 408, Section 300 – Base Courses unless otherwise directed by The City.
- E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940/D 2940M; with at least 95 percent passing a 1-1/2-inch (37.5-mm) sieve and not more than 8 percent passing a No. 200 (0.075-mm) sieve.
 - 1. Must comply with Pennsylvania Department of Transportation Publication 408, Section 300 – Base Courses unless otherwise directed by The City.
- F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940/D 2940M; with at least 90 percent passing a 1-1/2-inch (37.5-mm) sieve and not more than 12 percent passing a No. 200 (0.075-mm) sieve.
 - 1. Must comply with Pennsylvania Department of Transportation Publication 408, Section 300 – Base Courses unless otherwise directed by The City.
- G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940/D 2940M; except with 100 percent passing a 1-inch (25-mm) sieve and not more than 8 percent passing a No. 200 (0.075-mm) sieve.
 - 1. Must comply with Pennsylvania Department of Transportation Publication 408, Section 300 – Base Courses unless otherwise directed by The City.

- H. Drainage Course: Narrowly graded mixture of crushed stone, or crushed or uncrushed gravel; ASTM D 448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch (37.5-mm) sieve and zero to 5 percent passing a No. 8 (2.36-mm) sieve.
 - 1. Must comply with Pennsylvania Department of Transportation Publication 408, Section 300 – Base Courses unless otherwise directed by The City.
 - 2. Must comply with Pennsylvania Department of Transportation Publication 408, Section 612 – Subgrade Drains, unless otherwise directed by The City.
- I. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D 448; coarse-aggregate grading Size 67; with 100 percent passing a 1-inch (25-mm) sieve and zero to 5 percent passing a No. 4 (4.75-mm) sieve.
 - 1. Must comply with Pennsylvania Department of Transportation Publication 408, Section 300 – Base Courses unless otherwise directed by The City.
 - 2. Must comply with Pennsylvania Department of Transportation Publication 408, Section 613 – Stone Backfill for Miscellaneous Drainage unless otherwise directed by The City.
- J. Sand: ASTM C 33/C 33M; fine aggregate.
- K. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth-moving operations.
- B. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

3.2 DEWATERING

- A. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
 - 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.

3.3 EXPLOSIVES

- A. Explosives: Do not use explosives.

3.4 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
1. Comply with Pennsylvania Department of Transportation Publication 408, Section 200 – Earthwork unless otherwise directed by The City.
 2. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
 3. Remove rock to lines and grades indicated to permit installation of permanent construction without exceeding the following dimensions:
 - a. 24 inches (600 mm) outside of concrete forms other than at footings.
 - b. 12 inches (300 mm) outside of concrete forms at footings.
 - c. 6 inches (150 mm) outside of minimum required dimensions of concrete cast against grade.
 - d. Outside dimensions of concrete walls indicated to be cast against rock without forms or exterior waterproofing treatments.
 - e. 6 inches (150 mm) beneath bottom of concrete slabs-on-grade.
 - f. 6 inches (150 mm) beneath pipe in trenches and the greater of 24 inches (600 mm) wider than pipe or 42 inches (1065 mm) wide.

3.5 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.
1. Comply with Pennsylvania Department of Transportation Publication 408, Section 200 – Earthwork unless otherwise directed by The City.
 2. Comply with Pennsylvania Department of Transportation Publication 408, Section 800 – Roadside Development unless otherwise directed by The City.

3.6 SUBGRADE INSPECTION

- A. Notify The City when excavations have reached required subgrade.
- B. If The City determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
- C. Proof-roll subgrade below the pavements with a pneumatic-tired and loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons (13.6 tonnes) to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.

1. Completely proof-roll subgrade in one direction. Limit vehicle speed to 3 mph (5 km/h).
 2. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by The City and replace with compacted backfill or fill as directed.
- D. Authorized additional excavation and replacement material will be paid for according to Contract provisions for unit prices.
- E. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by The City, without additional compensation.

3.7 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi (17.2 MPa), may be used when approved by the City.
1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by The City.

3.8 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
1. Comply with Pennsylvania Department of Transportation Publication 408, Section 106 – control of Material.
 2. Stockpile soil materials away from edge of excavations. Do not store within drip line of roadside trees.

3.9 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
1. Comply with Pennsylvania Department of Transportation Publication 408, Section 206 – Placement and Compaction of Embankment and Fill unless otherwise directed by The City.
 2. Comply with Pennsylvania Department of Transportation Publication 408, Section 220 – Flowable Backfill unless otherwise directed by The City.
 3. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
 4. Surveying locations of underground utilities for Record Documents.
 5. Testing and inspecting underground utilities.

6. Removing trash and debris.
 7. Removing temporary shoring, bracing, and sheeting.
 8. Installing permanent or temporary horizontal bracing on horizontally supported walls.
- B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.10 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations as follows:
 1. Under grass and planted areas, use satisfactory soil material.
 2. Under walks and pavements, use satisfactory soil material.
- C. Place soil fill on subgrades free of mud, frost, snow, or ice.

3.11 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
 1. Comply with Pennsylvania Department of Transportation Publication 408, Section 206 – Embankment unless otherwise directed by The City.
 2. Comply with Pennsylvania Department of Transportation Publication 408, Section 210 – Subgrade unless otherwise directed by The City.
 3. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 4. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.12 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 8 inches (200 mm) in loose depth for material compacted by heavy compaction equipment and not more than 4 inches (100 mm) in loose depth for material compacted by hand-operated tampers.
 1. Comply with Pennsylvania Department of Transportation Publication 408, Section 202 – Total Demolition or Partial Demolition of Buildings and Other Structures unless otherwise directed by The City.

2. Comply with Pennsylvania Department of Transportation Publication 408, Section 206.3(b).5 – Placement and Compaction.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 698:
 1. Under structures and pavements, scarify and recompact top 12 inches (300 mm) of existing subgrade and each layer of backfill or fill soil material at 95 percent.
 2. Under turf or unpaved areas, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill soil material at 85 percent.
 3. For utility trenches, compact each layer of initial and final backfill soil material at 85 percent.

3.13 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 1. Provide a smooth transition between adjacent existing grades and new grades.
 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Rough Grading: Slope grades to direct water away from buildings/structures and to prevent ponding. Finish subgrades to elevations required to achieve indicated finish elevations, within the following subgrade tolerances:
 1. Turf or Unpaved Areas: Plus or minus 1 inch (25 mm).
 2. Pavements: Plus or minus 1/2 inch (13 mm).

3.14 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

- A. Place subbase course and base course on subgrades free of mud, frost, snow, or ice.
 1. Comply with Pennsylvania Department of Transportation Publication 408, Section 300 – Base Courses unless otherwise directed by The City.
- B. On prepared subgrade, place subbase course and base course under pavements in accordance with Pennsylvania Department of Transportation Publication 408, Section 206.3(b) and Section 210.
 1. Install separation geotextile on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends.

2. Place base course material over subbase course under hot-mix asphalt pavement.
3. Shape subbase course and base course to required crown elevations and cross-slope grades.
4. Place subbase course and base course 6 inches (150 mm) or less in compacted thickness in a single layer.
5. Compact subbase course and base course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 698.

3.15 FIELD QUALITY CONTROL

- A. Testing shall be performed as required by in accordance with Pennsylvania Department of Transportation Publication 408, Section 206.3(b).
 1. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
 2. Comply with Pennsylvania Department of Transportation Publication 408, Section 100 – General Provisions unless otherwise directed by The City.
- B. Repair and re-establish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
 1. Scarify or remove and replace soil material to depth as directed by The City; reshape and recompact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 1. Restore appearance, quality, and condition of finished surfacing to match adjacent Work, and eliminate evidence of restoration to greatest extent possible.

3.16 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 312000

SECTION 312500 – EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Installation of Rock Construction Entrance(s).
2. Installation of Compost Filter Sock(s).
3. Installation of Concrete Washout(s).
4. Installation of Erosion Control Blanket(s).

- B. Related Requirements:

1. Pennsylvania Department of Environmental Protection Erosion And Sediment Pollution Control Program Manual.

1.3 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified testing agency.
- B. Material Test Reports: For all stone and compost filter sock.
- C. Preinstallation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by earth-moving operations. Submit before earth moving begins.

1.4 FIELD CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth-moving operations.
 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.
- B. Installation on Adjoining Property: Authority for performing installation of erosion and sediment control methods indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.

1. Do not proceed with work on adjoining property unless directed by Engineer.

PART 2 - PRODUCTS

2.1 Compost Filter Socks

- A. Compost Filter Sock Fabric to meet the minimum specifications of Table 4.1 of the Pennsylvania Department of Environmental Protection Erosion And Sediment Pollution Control Program Manual.
- B. Compost Filter Sock Filler to meet the minimum specifications of Table 4.2 of the Pennsylvania Department of Environmental Protection Erosion And Sediment Pollution Control Program Manual.

2.2 Rock Construction Entrance

- A. Rock Construction Entrance materials shall be in accordance with Chapter 3 of the Pennsylvania Department of Environmental Protection Erosion And Sediment Pollution Control Program Manual.

2.3 Concrete Washout

- A. Concrete Washout materials shall be in accordance with Chapter 3 of the Pennsylvania Department of Environmental Protection Erosion And Sediment Pollution Control Program Manual.

2.4 Erosion Control Blanket

- A. Erosion Control Blanket materials shall be in accordance with Chapter 11 of the Pennsylvania Department of Environmental Protection Erosion And Sediment Pollution Control Program Manual.
- B. Erosion Control Blankets shall meet the minimum specifications of North American Green SC-150.

PART 3 - EXECUTION

3.1 PREPARATION/INSTALLATION

- A. Clearing and grubbing operations shall not begin until all Erosion and Sediment Controls have been placed.
- B. Erosion and Sediment Controls are to be installed in locations as shown on Sheet C-5 of the Plan Set.

- C. Installation of all Erosion and Sediment Controls shall be in accordance with the Pennsylvania Department of Environmental Protection Erosion And Sediment Pollution Control Program Manual and all notes and details on Sheet C-6 of the Plan Set.

3.2 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Testing agency will perform required inspections on a weekly basis and provide inspection reports to the Owner and Engineer.
- C. When testing agency reports that any deficiencies are present, additional Erosion and Sediment Controls shall be installed as necessary to remedy said deficiency.

END OF SECTION 312500

SECTION 321216 - ASPHALT PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Cold milling of existing asphalt pavement.
 - 2. Warm-mix asphalt paving.

- B. Related Requirements:

- 1. Section 024119 "Selective Demolition" for demolition and removal of existing asphalt pavement.
 - 2. Section 312000 "Earth Moving" for subgrade preparation, fill material, unbound-aggregate subbase and base courses, and aggregate pavement shoulders.
 - 3. Pennsylvania Department of Transportation Publication 408
 - a. Section 100 – General Provisions
 - b. Section 300 – Base Courses
 - c. Section 313 – Superpave Asphalt Mixture Design, Standard Construction, Base Course
 - d. Section 316 – Flexible Base Replacement
 - e. Section 320 – Aggregate-Bituminous Base Course
 - f. Section 400 – Flexible Pavements
 - g. Section 410 – Superpave Mixture Design, Standard and RPS Construction of Plant-Mixed HMA Fine Graded Courses
 - h. Section 413 – Superpave Mixture Design, Standard and RPS Construction of Plant-Mixed Asphalt Courses with Percent Within limits and LTS Testing
 - i. Section 419 – Stone Matrix Asphalt Mixture Design, RPS Construction of Plant-Mixed Wearing Courses
 - j. Section 460 – Bituminous Tack Coat
 - k. Section 467 – Heavy Duty Membranes
 - l. Section 491 – Milling of Bituminous Pavement Surface
 - m. Section 500 – Rigid Pavements
 - n. Section 600 – Incidental Construction
 - o. Section 605 – Endwalls, Inlets, Manholes, and Spring Boxes
 - p. Section 606 – Grade Adjustment of Existing Miscellaneous Structures
 - q. Section 700 – Material
 - r. Section 705 – Joint Material

1.3 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For manufacturer.
- B. Material Certificates: For each paving material.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A paving-mix manufacturer registered with and approved by authorities having jurisdiction or the DOT of state in which Project is located
- B. Testing Agency Qualifications: Qualified according to ASTM D 3666, ASTM D 6637 Method A modified, ASTM D 5261, ASTM D 276, and ASTM D 6140 for testing indicated.

1.5 FIELD CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:
 - 1. Prime Coat: Minimum surface temperature of 60 deg F (15.6 deg C).
 - 2. Tack Coat: Minimum surface temperature of 60 deg F (15.6 deg C).
 - 3. Asphalt Base Course: Minimum surface temperature of 40 deg F (4.4 deg C) and rising at time of placement.
 - 4. Asphalt Surface Course: Minimum surface temperature of 60 deg F (15.6 deg C) at time of placement.

PART 2 - PRODUCTS

2.1 AGGREGATES

- A. Comply with Pennsylvania Department of Transportation Publication 408, Section 100 – General Provisions unless otherwise directed by The City.
- B. Comply with Pennsylvania Department of Transportation Publication 408, Section 300 – Base Courses unless otherwise directed by The City.
- C. Comply with Pennsylvania Department of Transportation Publication 408, Section 400 – Flexible Pavements unless otherwise directed by The City.
- D. Comply with Pennsylvania Department of Transportation Publication 408, Section 500 – Rigid Pavements unless otherwise directed by The City.
- E. Comply with Pennsylvania Department of Transportation Publication 408, Section 600 – Incidental Construction unless otherwise directed by The City.
- F. Comply with Pennsylvania Department of Transportation Publication 408, Section 700 – Material unless otherwise directed by The City.

- G. General: Use materials and gradations that have performed satisfactorily in previous installations.
- H. Coarse Aggregate: ASTM D 692/D 692M, sound; angular crushed stone, crushed gravel, or cured, crushed blast-furnace slag.
- I. Fine Aggregate: ASTM D 1073 or AASHTO M 29, sharp-edged natural sand or sand prepared from stone, gravel, cured blast-furnace slag, or combinations thereof.
 - 1. For warm-mix asphalt, limit natural sand to a maximum of 20 percent by weight of the total aggregate mass.
- J. Mineral Filler: ASTM D 242/D 242M or AASHTO M 17, rock or slag dust, hydraulic cement, or other inert material.

2.2 ASPHALT MATERIALS

- A. Comply with all applicable documents and sections prescribed in Section 2.1 of this document unless otherwise directed by The City.
- B. Superpave Asphalt WMA Binder course, PG 64-22, 0 < 0.3 Million ESALS, 19mm, placed and compacted to a depth of 2.0", in accordance with Pennsylvania Department of Transportation Publication 408, Section 313 and 316.
- C. Superpave Asphalt WMA Wearing course, PG 64-22, 0 < 0.3 Million ESALS, 9.5mm SRL-H, placed and compacted to a depth of 1.5", in accordance with Pennsylvania Department of Transportation Publication 408, Section 410 and 413.
- D. Tack Coat: ASTM D 977 or AASHTO M 140 emulsified asphalt, or ASTM D 2397 or AASHTO M 208 cationic emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application, in accordance with Pennsylvania Department of Transportation Publication 408, Section 460.
- E. Water: Potable.

2.3 AUXILIARY MATERIALS

- A. Joint Sealant: ASTM D 6690 or AASHTO M 324, Type II or III, hot-applied, single-component, polymer-modified bituminous sealant.
 - 1. Comply with Pennsylvania Department of Transportation Publication 408, Section 705 – Joint Material unless otherwise directed by The City.

2.4 MIXES

- A. Warm-Mix Asphalt: Dense-graded, warm-laid, warm-mix asphalt plant mixes approved by authorities having jurisdiction and complying with the following requirements:
 - 1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.

2. Comply with Pennsylvania Department of Transportation Publication 408, Section 400 – Flexible Pavements unless otherwise directed by The City.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that subgrade is dry and in suitable condition to begin paving.
- B. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
 1. Completely proof-roll subgrade in one direction. Limit vehicle speed to 3 mph (5 km/h).
 2. Proof roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons (13.6 tonnes).
 3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by The City, and replace with compacted backfill or fill as directed.
- C. Proceed with paving only after unsatisfactory conditions have been corrected.

3.2 REMOVAL OF ASPHALT PAVEMENT

- A. Comply with Pennsylvania Department of Transportation Publication 408, Section 491 – Milling of Bituminous Pavement Surface unless otherwise directed by The City.
 1. Material may be milled or removed by excavator.
 2. Clean and neat sawcuts shall be performed at all joints between old and new pavement prior to removal and shall be maintained during construction.

3.3 SURFACE PREPARATION

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.
- B. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m).
 1. Comply with Pennsylvania Department of Transportation Publication 408, Section 313 – Superpave Asphalt Mixture Design, Standard Construction, Base Course unless otherwise directed by The City.
 2. Comply with Pennsylvania Department of Transportation Publication 408, Section 413 – Superpave Mixture Design, Standard and RPS Construction of Plant-Mixed Asphalt Courses with Percent Within limits and LTS Testing unless otherwise directed by The City.

3. Comply with Pennsylvania Department of Transportation Publication 408, Section 419 – Stone Matrix Asphalt Mixture Design, RPS Construction of Plant-Mixed Wearing Courses unless otherwise directed by The City.
4. Comply with Pennsylvania Department of Transportation Publication 408, Section 460 – Bituminous Tack Coat unless otherwise directed by The City.
5. Allow tack coat to cure undisturbed before applying warm-mix asphalt paving.
6. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.4 PLACING WARM-MIX ASPHALT

- A. Machine place warm-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand in areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
 1. Comply with Pennsylvania Department of Transportation Publication 408, Section 313 – Superpave Asphalt Mixture Design, Standard Construction, Base Course unless otherwise directed by The City.
 2. Comply with Pennsylvania Department of Transportation Publication 408, Section 316 – Flexible Base Replacement unless otherwise directed by The City.
 3. Comply with Pennsylvania Department of Transportation Publication 408, Section 413 – Superpave Mixture Design, Standard and RPS Construction of Plant-Mixed Asphalt Courses with Percent Within limits and LTS Testing unless otherwise directed by The City.
 4. Comply with Pennsylvania Department of Transportation Publication 408, Section 419 – Stone Matrix Asphalt Mixture Design, RPS Construction of Plant-Mixed Wearing Courses unless otherwise directed by The City.
 5. Comply with Pennsylvania Department of Transportation Publication 408, Section 600 – Incidental Construction for applicable Paved Shoulder Types unless otherwise directed by The City.
 6. Place warm-mix asphalt base course in number of lifts and thicknesses indicated.
 7. Place warm-mix asphalt surface course in single lift.
 8. Spread mix at a minimum temperature of 250 deg F (121 deg C).
 9. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes unless otherwise indicated.
 10. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- B. Place paving in consecutive strips not less than 10 feet (3 m) wide unless infill edge strips of a lesser width are required.

1. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Overlap mix placement about 1 to 1-1/2 inches (25 to 38 mm) from strip to strip to ensure proper compaction of mix along longitudinal joints.
 2. Complete a section of asphalt base course before placing asphalt surface course.
- C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with warm-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.5 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of warm-mix asphalt course.
1. Comply with Pennsylvania Department of Transportation Publication 408, Section 705 – Joint Material unless otherwise directed by The City.
 2. Clean contact surfaces and apply tack coat to joints.
 3. Offset longitudinal joints, in successive courses, a minimum of 6 inches (150 mm).
 4. Offset transverse joints, in successive courses, a minimum of 24 inches (600 mm).
 5. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered" method according to AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations."
 6. Compact joints as soon as warm-mix asphalt will bear roller weight without excessive displacement.
 7. Compact asphalt at joints to a density within 2 percent of specified course density.
 8. Upon completion, all joints between existing and new pavement shall have rubberized joint sealer placed on them.

3.6 COMPACTION

- A. General: Begin compaction as soon as placed warm-mix paving will bear roller weight without excessive displacement. Compact warm-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.
1. Comply with all applicable documents and sections prescribed in Section 3.5 of this document unless otherwise directed by The City.
 2. Complete compaction before mix temperature cools to 185 deg F (85 deg C).
- B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.

- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while warm-mix asphalt is still hot enough to achieve specified density. Continue rolling until warm-mix asphalt course has been uniformly compacted to the following density:
 - 1. Average Density: 96 percent of reference laboratory density according to ASTM D 6927 or AASHTO T 245, but not less than 94 percent or greater than 100 percent.
 - 2. Average Density: 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent or greater than 96 percent.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while warm-mix asphalt is still warm.
- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
- F. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, warm-mix asphalt. Compact by rolling to specified density and surface smoothness.
- G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.7 INSTALLATION TOLERANCES

- A. Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:
 - 1. Base/Binder Course: Plus or minus 1/2 inch (13 mm).
 - 2. Surface Course: Plus 1/4 inch (6 mm), no minus.
- B. Pavement Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot (3-m) straightedge applied transversely or longitudinally to paved areas:
 - 1. Base Course: 1/4 inch (6 mm).
 - 2. Surface Course: 1/8 inch (3 mm).
 - 3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch (6 mm).

3.8 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Thickness: In-place compacted thickness of warm-mix asphalt courses will be determined according to ASTM D 3549.

- C. Surface Smoothness: Finished surface of each warm-mix asphalt course will be tested for compliance with smoothness tolerances.
 - D. In-Place Density: Testing agency will take samples of uncompacted paving mixtures and compacted pavement according to ASTM D 979 or AASHTO T 168.
 - 1. Reference maximum theoretical density will be determined by averaging results from four samples of warm-mix asphalt-paving mixture delivered daily to site, prepared according to ASTM D 2041, and compacted according to job-mix specifications.
 - 2. In-place density of compacted pavement will be determined by testing core samples according to ASTM D 1188 or ASTM D 2726.
 - a. One core sample will be taken for every 1000 sq. yd. (836 sq. m) or less of installed pavement, with no fewer than three cores taken.
 - b. Field density of in-place compacted pavement may also be determined by nuclear method according to ASTM D 2950 and correlated with ASTM D 1188 or ASTM D 2726.
 - E. Replace and compact warm-mix asphalt where core tests were taken.
 - F. Remove and replace or install additional warm-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.
- 3.9 WASTE HANDLING
- A. General: Handle asphalt-paving waste according to approved waste management plan required in Section 017419 "Construction Waste Management and Disposal."

END OF SECTION 321216

SECTION 329113 - SOIL PREPARATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes planting soils specified by composition of the mixes.
- B. Related Requirements:
 - 1. Section 129300 "Site Furnishings" for placing planting soil in exterior unit planters.
 - 2. Section 311000 "Site Clearing" for topsoil stripping and stockpiling.
 - 3. Section 329200 "Turf and Grasses" for placing planting soil for turf and grasses.

1.3 DEFINITIONS

- A. AAPFCO: Association of American Plant Food Control Officials.
- B. Backfill: The earth used to replace or the act of replacing earth in an excavation. This can be amended or unamended soil as indicated.
- C. CEC: Cation exchange capacity.
- D. Compost: The product resulting from the controlled biological decomposition of organic material that has been sanitized through the generation of heat and stabilized to the point that it is beneficial to plant growth.
- E. Duff Layer: A surface layer of soil, typical of forested areas, that is composed of mostly decayed leaves, twigs, and detritus.
- F. Imported Soil: Soil that is transported to Project site for use.
- G. Layered Soil Assembly: A designed series of planting soils, layered on each other, that together produce an environment for plant growth.
- H. Manufactured Soil: Soil produced by blending soils, sand, stabilized organic soil amendments, and other materials to produce planting soil.
- I. NAPT: North American Proficiency Testing Program. An SSSA program to assist soil-, plant-, and water-testing laboratories through interlaboratory sample exchanges and statistical evaluation of analytical data.

- J. Organic Matter: The total of organic materials in soil exclusive of undecayed plant and animal tissues, their partial decomposition products, and the soil biomass; also called "humus" or "soil organic matter."
- K. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified as specified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- L. RCRA Metals: Hazardous metals identified by the EPA under the Resource Conservation and Recovery Act.
- M. SSSA: Soil Science Society of America.
- N. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.
- O. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile, typified by less than 1 percent organic matter and few soil organisms.
- P. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil"; but in disturbed areas such as urban environments, the surface soil can be subsoil.
- Q. USCC: U.S. Composting Council.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include recommendations for application and use.
 - 2. Include test data substantiating that products comply with requirements.
 - 3. Include sieve analyses for aggregate materials.
 - 4. Material Certificates: For each type of imported soil and soil amendment and fertilizer before delivery to the site, according to the following:
 - a. Manufacturer's qualified testing agency's certified analysis of standard products.
 - b. Analysis of fertilizers, by a qualified testing agency, made according to AAPFCO methods for testing and labeling and according to AAPFCO's SUIP #25.
 - c. Analysis of nonstandard materials, by a qualified testing agency, made according to SSSA methods, where applicable.
- B. Samples: For each bulk-supplied material, 1-quart (1-L) volume of each in sealed containers labeled with content, source, and date obtained. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of composition, color, and texture.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For each testing agency.

1.6 QUALITY ASSURANCE

- A. Testing Agency Qualifications: An independent, state-operated, or university-operated laboratory; experienced in soil science, soil testing, and plant nutrition; with the experience and capability to conduct the testing indicated; and that specializes in types of tests to be performed.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and compliance with state and Federal laws if applicable.
- B. Bulk Materials:
 - 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
 - 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
 - 3. Do not move or handle materials when they are wet or frozen.
 - 4. Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Regional Materials: Imported soil, manufactured planting soil and soil amendments and fertilizers shall be manufactured within 500 miles (800 km) of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles (800 km) of Project site.

2.2 PLANTING SOILS SPECIFIED BY COMPOSITION

- A. General: Soil amendments, fertilizers, and rates of application specified in this article are guidelines that may need revision based on testing laboratory's recommendations after preconstruction soil analyses are performed.

2.3 INORGANIC SOIL AMENDMENTS

- A. Lime: ASTM C 602, agricultural liming material containing a minimum of 80 percent calcium carbonate equivalent and as follows:
 - 1. Class: T, with a minimum of 99 percent passing through a No. 8 (2.36-mm) sieve and a minimum of 75 percent passing through a No. 60 (0.25-mm) sieve.
 - 2. Class: O, with a minimum of 95 percent passing through a No. 8 (2.36-mm) sieve and a minimum of 55 percent passing through a No. 60 (0.25-mm) sieve.

3. Form: Provide lime in form of ground dolomitic limestone.
- B. Sulfur: Granular, biodegradable, and containing a minimum of 90 percent elemental sulfur, with a minimum of 99 percent passing through a No. 6 (3.35-mm) sieve and a maximum of 10 percent passing through a No. 40 (0.425-mm) sieve.
- C. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.
- D. Perlite: Horticultural perlite, soil amendment grade.
- E. Agricultural Gypsum: Minimum 90 percent calcium sulfate, finely ground with 90 percent passing through a No. 50 (0.30-mm) sieve.
- F. Sand: Clean, washed, natural or manufactured, free of toxic materials, and according to ASTM C 33/C 33M.

2.4 ORGANIC SOIL AMENDMENTS

- A. Compost: Well-composted, stable, and weed-free organic matter produced by composting feedstock, and bearing USCC's "Seal of Testing Assurance," and as follows:
 1. Feedstock: Limited to leaves.
 2. Reaction: pH of 5.5 to 8.
 3. Soluble-Salt Concentration: Less than 4 dS/m.
 4. Moisture Content: 35 to 55 percent by weight.
 5. Organic-Matter Content: 30 to 40 percent of dry weight.
 6. Particle Size: Minimum of 98 percent passing through a 2-inch (50-mm) sieve.
- B. Wood Derivatives: Shredded and composted, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture and free of chips, stones, sticks, soil, or toxic materials.
 1. Partially Decomposed Wood Derivatives: In lieu of shredded and composted wood derivatives, mix shredded and partially decomposed wood derivatives with ammonium nitrate at a minimum rate of 0.15 lb/cu. ft. (2.4 kg/cu. m) of loose sawdust or ground bark, or with ammonium sulfate at a minimum rate of 0.25 lb/cu. ft. (4 kg/cu. m) of loose sawdust or ground bark.
- C. Manure: Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, debris, and material harmful to plant growth.

2.5 FERTILIZERS

- A. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 33 percent available phosphoric acid.
- B. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:

1. Composition: 1 lb/1000 sq. ft. (0.5 kg/100 sq. m) of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
 2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified testing agency.
- C. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
 2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified testing agency.
- D. Chelated Iron: Commercial-grade FeEDDHA for dicots and woody plants, and commercial-grade FeDTPA for ornamental grasses and monocots.

PART 3 - EXECUTION

3.1 GENERAL

- A. Place planting soil and fertilizers according to requirements in other Specification Sections.
- B. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in planting soil.
- C. Proceed with placement only after unsatisfactory conditions have been corrected.

3.2 PREPARATION OF UNAMENDED, ON-SITE SOIL BEFORE AMENDING

- A. Excavation: Excavate soil from designated area(s) to a depth of 6 inches (150 mm) and stockpile until amended.
- B. Unacceptable Materials: Clean soil of concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials that are harmful to plant growth.
- C. Unsuitable Materials: Clean soil to contain a maximum of 8 percent by dry weight of stones, roots, plants, sod, clay lumps, and pockets of coarse sand.
- D. Screening: Pass unamended soil through a 2-inch (50-mm) sieve to remove large materials.

3.3 PLACING AND MIXING PLANTING SOIL OVER EXPOSED SUBGRADE

- A. General: Apply and mix unamended soil with amendments on-site to produce required planting soil. Do not apply materials or till if existing soil or subgrade is frozen, muddy, or excessively wet.

- B. Subgrade Preparation: Till subgrade to a minimum depth of 4 inches (100 mm). Remove stones larger than 2 inches (50 mm) in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
 - 1. Apply, add soil amendments, and mix approximately half the thickness of unamended soil over prepared, loosened subgrade according to "Mixing" Paragraph below. Mix thoroughly into top 2 inches (50 mm) of subgrade. Spread remainder of planting soil.
- C. Mixing: Spread unamended soil to total depth of 4 inches (100 mm), but not less than required to meet finish grades after mixing with amendments and natural settlement. Do not spread if soil or subgrade is frozen, muddy, or excessively wet.
 - 1. Amendments: Apply soil amendments and fertilizer, if required, evenly on surface, and thoroughly blend them with unamended soil to produce planting soil.
 - a. Mix lime and sulfur with dry soil before mixing fertilizer.
 - b. Mix fertilizer with planting soil no more than seven days before planting.
 - 2. Lifts: Apply and mix unamended soil and amendments in lifts not exceeding 8 inches (200 mm) in loose depth for material compacted by compaction equipment, and not more than 4 inches (100 mm) in loose depth for material compacted by hand-operated tampers.
- D. Compaction: Compact each blended lift of planting soil to 75 to 82 percent of maximum Standard Proctor density according to ASTM D 698 and tested in-place.
- E. Finish Grading: Grade planting soil to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.

BLENDING PLANTING SOIL IN PLACE

- F. General: Mix amendments with in-place, unamended soil to produce required planting soil. Do not apply materials or till if existing soil or subgrade is frozen, muddy, or excessively wet.
- G. Preparation: Till unamended, existing soil in planting areas to a minimum depth of 4 inches (100 mm). Remove stones larger than 2 inches (50 mm) in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
- H. Mixing: Apply soil amendments and fertilizer, if required, evenly on surface, and thoroughly blend them into full depth of unamended, in-place soil to produce planting soil.
 - 1. Mix lime and sulfur with dry soil before mixing fertilizer.
 - 2. Mix fertilizer with planting soil no more than seven days before planting.
- I. Compaction: Compact blended planting soil to 75 to 82 percent of maximum Standard Proctor density according to ASTM D 698.
- J. Finish Grading: Grade planting soil to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.

3.4 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Perform the following tests:
 - 1. Compaction: Test planting-soil compaction after placing each lift and at completion using a densitometer or soil-compaction meter calibrated to a reference test value based on laboratory testing according to ASTM D 698. Space tests at no less than one for each 2000 sq. ft. (200 sq. m) of in-place soil or part thereof.
- C. Soil will be considered defective if it does not pass tests.
- D. Prepare test reports.
- E. Label each sample and test report with the date, location keyed to a site plan or other location system, visible conditions when and where sample was taken, and sampling depth.

3.5 PROTECTION

- A. Protect areas of in-place soil from additional compaction, disturbance, and contamination. Prohibit the following practices within these areas except as required to perform planting operations:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Vehicle traffic.
 - 4. Foot traffic.
 - 5. Erection of sheds or structures.
 - 6. Impoundment of water.
 - 7. Excavation or other digging unless otherwise indicated.
- B. If planting soil or subgrade is overcompacted, disturbed, or contaminated by foreign or deleterious materials or liquids, remove the planting soil and contamination; restore the subgrade as directed by Engineer and replace contaminated planting soil with new planting soil.

3.6 CLEANING

- A. Protect areas adjacent to planting-soil preparation and placement areas from contamination. Keep adjacent paving and construction clean and work area in an orderly condition.
- B. Remove surplus soil and waste material including excess subsoil, unsuitable materials, trash, and debris and legally dispose of them off Owner's property unless otherwise indicated.
 - 1. Dispose of excess subsoil and unsuitable materials on-site where directed by Owner.

END OF SECTION 329113

SECTION 329200 - TURF AND GRASSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Seeding.
 - 2. Hydroseeding.

1.3 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- C. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- D. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth. See Section 329113 "Soil Preparation" and drawing designations for planting soils.
- E. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For landscape Installer.
- B. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture, stating the botanical and common name, percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
- C. Product Certificates: For fertilizers, from manufacturer.

- D. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to Project.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: Recommended procedures to be established by Owner for maintenance of turf during a calendar year. Submit before expiration of required maintenance periods.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful turf establishment.
 1. Experience: Three years' experience in turf installation in addition to requirements in Section 014000 "Quality Requirements."
 2. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
 3. Pesticide Applicator: State licensed, commercial.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of compliance with state and Federal laws, as applicable.
- B. Bulk Materials:
 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials; discharge of soil-bearing water runoff; and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
 3. Accompany each delivery of bulk materials with appropriate certificates.

1.8 FIELD CONDITIONS

- A. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of Substantial Completion.
 1. Spring Planting: April to June.
 2. Fall Planting: August to October.
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

PART 2 - PRODUCTS

2.1 SEED

- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Rules for Testing Seeds" for purity and germination tolerances.
- B. Seed Species:
 - 1. Quality: State-certified seed of grass species as listed below for solar exposure.
 - 2. Sun and Shade: Proportioned by weight as follows:
 - a. 56 percent Kentucky bluegrass (*Poa pratensis*).
 - b. 38 percent perennial ryegrass (*Lolium perenne*).
 - c. 6 percent redtop (*Agrostis alba*).

2.2 FERTILIZERS

- A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
 - 1. Composition: 1 lb/1000 sq. ft. (0.45 kg/92.9 sq. m) of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
 - 2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.

2.3 MULCHES

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
- B. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic and free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.

2.4 PESTICIDES

- A. General: Pesticide, registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
- B. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
- C. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

2.5 EROSION-CONTROL MATERIALS

- A. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches (150 mm) long.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to be planted for compliance with requirements and other conditions affecting installation and performance of the Work.
 - 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
 - 2. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
 - 3. Uniformly moisten excessively dry soil that is not workable or which is dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Engineer and replace with new planting soil.

3.2 PREPARATION

- A. Protect structures; utilities; sidewalks; pavements; and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
 - 1. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.
 - 2. Protect grade stakes set by others until directed to remove them.
- B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.3 TURF AREA PREPARATION

- A. General: Prepare planting area for soil placement and mix planting soil according to Section 329113 "Soil Preparation."
- B. Moistening prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- C. Before planting, obtain Engineer's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.4 PREPARATION FOR EROSION-CONTROL MATERIALS

- A. Prepare area as specified in "Turf Area Preparation" Article.
- B. For erosion-control blanket or mesh, install from top of slope, working downward, and as recommended by material manufacturer for site conditions. Fasten as recommended by material manufacturer.
- C. Moisten prepared area before planting if surface is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

3.5 SEEDING

- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph (8 km/h).
 - 1. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
 - 2. Do not use wet seed or seed that is moldy or otherwise damaged.
 - 3. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate of 3 to 4 lb/1000 sq. ft. (1.4 to 1.8 kg/92.9 sq. m).
- C. Rake seed lightly into top 1/8 inch (3 mm) of soil, roll lightly, and water with fine spray.
- D. Protect seeded areas with slopes exceeding 1:4 with erosion-control blankets installed and stapled according to manufacturer's written instructions.
- E. Protect seeded areas with erosion-control mats where indicated on Drawings; install and anchor according to manufacturer's written instructions.
- F. Protect seeded areas with slopes not exceeding 1:6 by spreading straw mulch. Spread uniformly at a minimum rate of 3 tons/acre to form a continuous blanket 1-1/2 inches (38 mm) in loose thickness over seeded areas. Spread by hand, blower, or other suitable equipment.
 - 1. Anchor straw mulch by crimping into soil with suitable mechanical equipment.

3.6 HYDROSEEDING

- A. Hydroseeding: Mix specified seed, commercial fertilizer, and fiber mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.
 - 1. Spray-apply slurry uniformly to all areas to be seeded in a one-step process. Apply slurry at a rate so that mulch component is deposited at not less than 1500-lb/acre (15.6-kb/92.9 sq. m) dry weight, and seed component is deposited at not less than the specified seed-sowing rate.

3.7 TURF MAINTENANCE

- A. General: Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and mulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.
 - 1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.
 - 2. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
 - 3. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.
- B. Watering: Install and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep turf uniformly moist to a depth of 4 inches (100 mm).
 - 1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
 - 2. Water turf with fine spray at a minimum rate of 1 inch (25 mm) per week unless rainfall precipitation is adequate.
- C. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than one-third of grass height. Remove no more than one-third of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:
 - 1. Mow to a height of 1-1/2 to 2 inches (38 to 50 mm).

3.8 SATISFACTORY TURF

- A. Turf installations shall meet the following criteria as determined by Engineer:
 - 1. Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. (0.92 sq. m) and bare spots not exceeding 5 by 5 inches (125 by 125 mm).
- B. Use specified materials to reestablish turf that does not comply with requirements, and continue maintenance until turf is satisfactory.

3.9 PESTICIDE APPLICATION

- A. Apply pesticides and other chemical products and biological control agents according to requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

- B. Post-Emergent Herbicides (Selective and Nonselective): Apply only as necessary to treat already-germinated weeds and according to manufacturer's written recommendations.

3.10 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.
- C. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.
- D. Remove nondegradable erosion-control measures after grass establishment period.

3.11 MAINTENANCE SERVICE

- A. Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in "Turf Maintenance" Article. Begin maintenance immediately after each area is planted and continue until acceptable turf is established, but for not less than the following periods:
 - 1. Seeded Turf: 60 <Insert number> days from date of Substantial Completion.
 - a. When initial maintenance period has not elapsed before end of planting season, or if turf is not fully established, continue maintenance during next planting season.

END OF SECTION 329200

ATTACHMENT 2

SUBSURFACE INVESTIGATION MEMORANDUM



October 30, 2020

Ms. Cindy Castner, Public Property Manager
City of Reading
503 North 6th Street
Reading, PA 19601

RE: Angelica Creek Park
Subsurface Investigation Memorandum
REA-20-118

Dear Ms. Castner,

CEDARVILLE Engineering Group (CEG) is pleased to submit this Subsurface Investigation Memorandum which details the subsurface field investigation completed at Angelica Creek Park for the proposed ADA improvements to the existing trail. The field investigation was completed on May 20, 2020 by a certified professional geologist from the CEG staff. The investigation included the excavation of four (4) test holes at the project site to a depth of three (3) feet, or until refusal was encountered. The soil profile at each test hole location was classified, documented, and photographed before backfilling each test hole location. A description of the soil profile at each test hole location is provided below. Attached to this memorandum are Test Hole Logs, a Photograph Log from the field investigation, and a Testing Location Plan.

Test holes (TH) were excavated at the project site at four (4) locations around the interior perimeter of the existing trail on May 20, 2020. Each test hole was excavated to a depth of 36-inches below existing grade unless refusal was encountered prior. Refusal was encountered on rocky soil at location TH-4 at a depth of 30-inches below existing grade. Descriptions of the soil profile encountered at each of the test holes is provided below, as well as in the attached test hole logs.

- **Test Hole #1** - Top soil was encountered from the ground surface to a depth of nine-inches. The topsoil is dark brown soil rich in organic matter and is moist. From a depth of 9-inches to 13-inches a layer of moist, brown, silty sand with gravel was encountered. The gravel encountered in stratum was angular to subangular. Brown, moist, silty sand was encountered from 13-inches to 33-inches below grade. From 33-inches to the bottom of the test hole at 36-inches, cobbles with silt was encountered. The cobbles were subrounded to rounded.
- **Test Hole #2** - Top soil was encountered from the ground surface to a depth of eight-inches. The topsoil is dark brown soil rich in organic matter and is moist. From 8-inches to 20-inches a stratum of dark brown, moist, silty sand with gravel was encountered. The gravel in this stratum was angular. From 20-inches to the bottom of the test hole at 36-inches, brown, moist, poorly graded sand with silt was encountered. The moisture level of the poorly graded sand with silt was greater than the overlying stratum. Rounded cobbles were encountered within this stratum.
- **Test Hole #3** - Top soil was encountered from the ground surface to a depth of six-inches. From 6-inches to 18-inches a stratum of brown, moist sandy silt was identified. Below the sandy silt, from 18-inches to 36-inches a stratum of orangish brown, moist, sandy clay was present. The sandy clay stratum is moist and contains some angular gravel.

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Angelica Creek Park
Subsurface Investigation Memorandum
REA-20-118



- **Test Hole #4-** Top soil was encountered from the ground surface to a depth of five-inches. A stratum of brown, dry, sandy silt was encountered below the topsoil and extended to a depth of 10-inches. From 10-inches to 30-inches a stratum of dry, brown, cobbles with sandy silt was encountered. Excavation beyond 30-inches below grade could not be completed due to rocky nature of the soil.

Results from the excavation of the test holes indicates that the existing soils at the project site are suitable for the proposed ADA Trail Renovations. No special considerations need to be taken into account in regard to the subsurface conditions based on the results of this assessment. It is recommended that topsoil be removed from locations of improvements.

Please feel free to contact CEG if you have any additional questions regarding the results of the infiltration testing completed for this project.

Best Regards,
CEDARVILLE Engineering Group, LLC

Kyle Turner, P.E.
Project Engineer

Enclosures: Test Hole Logs
Photograph Log



PHOTOGRAPHIC LOG


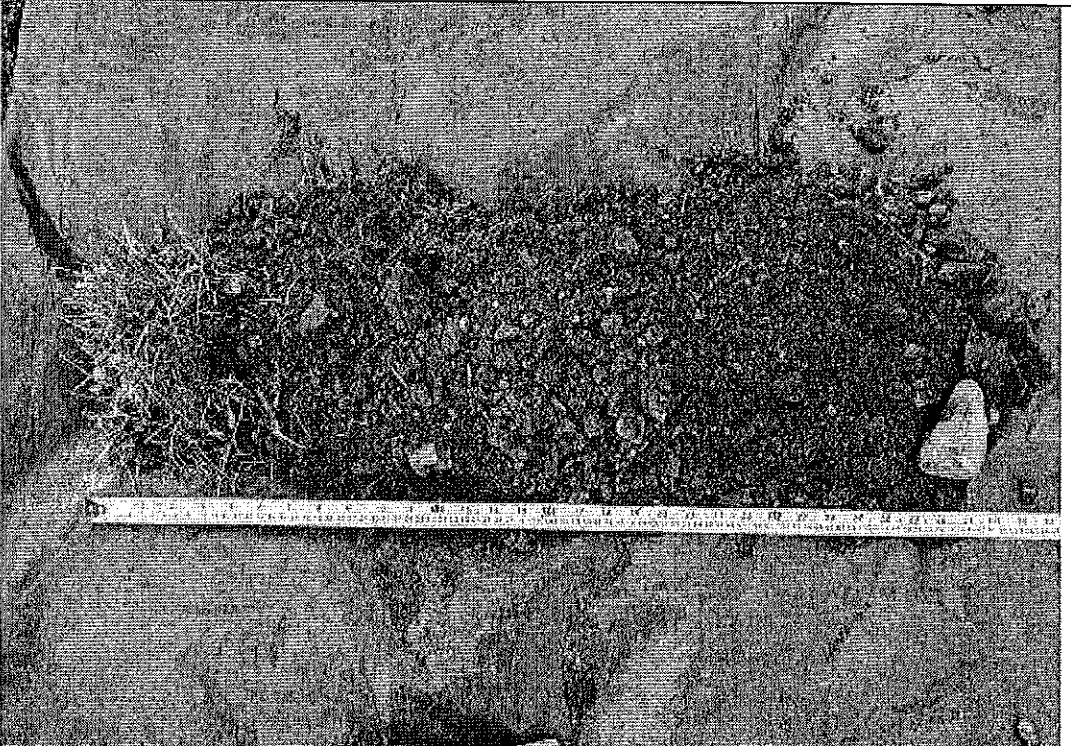
Client Name: City of Reading		Site Location: Angelic Creek Park	Project No. REA-20-118
Photo No. 1	Date: 5/20/20		
Direction Photo Taken: Northeast			
Description: Location of Test Hole 1.			

Photo No. 2	Date: 5/20/20	
Direction Photo Taken: ---		
Description: Soil profile of Test Hole 1.		



PHOTOGRAPHIC LOG

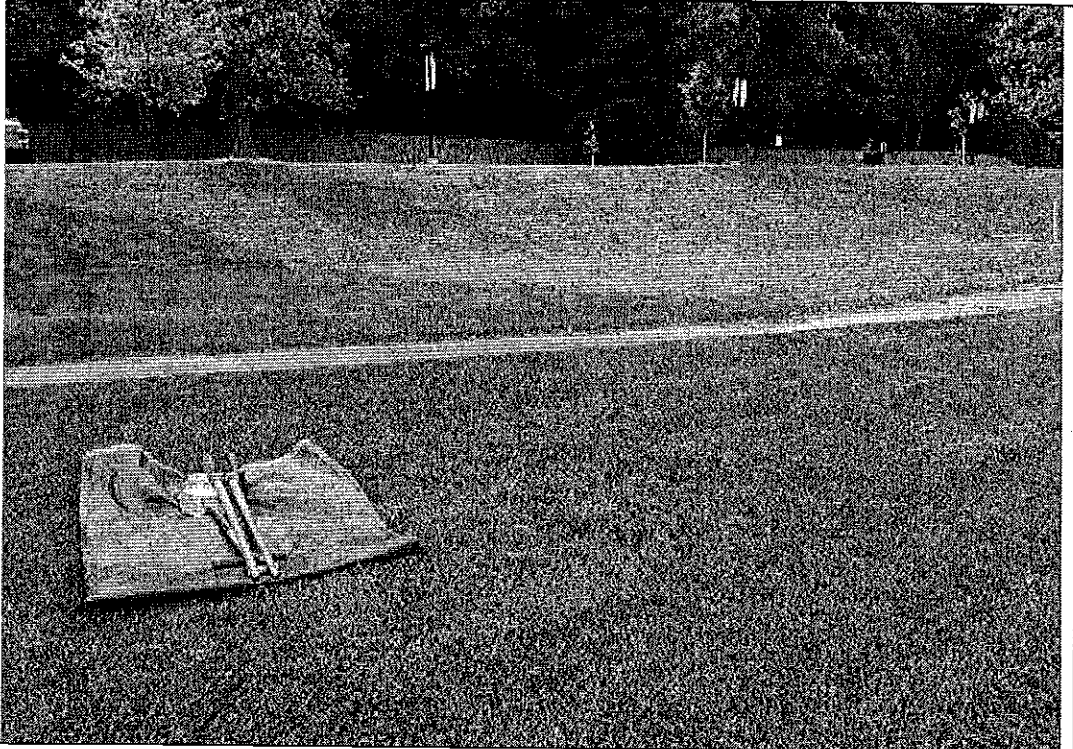

Client Name: City of Reading		Site Location: Angelic Creek Park	Project No. REA-20-118
Photo No. 3	Date: 5/20/20		
Direction Photo Taken: Southeast			
Description: Location of Test Hole 2.			

Photo No. 4	Date: 5/20/20	
Direction Photo Taken: ---		
Description: Soil profile of test hole 2.		



PHOTOGRAPHIC LOG

Client Name: City of Reading		Site Location: Angelic Creek Park	Project No. REA-20-118
Photo No. 5	Date: 5/20/20		
Direction Photo Taken: Northwest			
Description: Location of test hole 3.			

Photo No. 6	Date: 5/20/20	
Direction Photo Taken: --		
Description: Soil profile of test hole 3.		



PHOTOGRAPHIC LOG

Client Name: City of Reading		Site Location: Angelic Creek Park	Project No. REA-20-118
Photo No. 7	Date: 5/20/20		
Direction Photo Taken: South			
Description: Location of test hole 4.			

Photo No. 8	Date: 5/20/20	
Direction Photo Taken: --		
Description: Soil profile of test hole 4.		

Project: **Angelica Creek Park ADA Trail**Project Location: **Reading, PA**Project Number: **REA-20-118****Log of Boring TH-1****Sheet 1 of 1**

Date(s) Drilled 5/20/20	Logged By J. Hartz	Checked By
Drilling Method Hand Methods	Drill Bit Size/Type	Total Depth of Borehole 3 feet bgs
Drill Rig Type	Drilling Contractor CEG	Approximate Surface Elevation
Groundwater Level and Date Measured Not Encountered	Sampling Method(s) Grab	Hammer Data
Borehole Backfill Spoils	Location	

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0				OL		Topsoil, dark brown, moist	
					SM		Silty sand (sm) with gravel, brown, moist	
					SM		Silty sand (sm), brown, moist	
							Cobbles with silt, brown, dry. Cobbles are subrounded to rounded.	
	5						Test hole terminated at 36-inches below existing grade.	
	10							
	15							
	20							
	25							
	30							

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Project: **Angelica Creek Park ADA Trail**Project Location: **Reading, PA**Project Number: **REA-20-118**

Log of Boring TH-2

Sheet 1 of 1

Date(s) Drilled 5/20/20	Logged By J. Hartz	Checked By
Drilling Method Hand Methods	Drill Bit Size/Type	Total Depth of Borehole 3 feet bgs
Drill Rig Type	Drilling Contractor CEG	Approximate Surface Elevation
Groundwater Level and Date Measured Not Encountered	Sampling Method(s) Grab	Hammer Data
Borehole Backfill Spoils	Location	

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
0					OL		Topsoil, dark brown, moist	
					SM		Silty sand (sm) with gravel, brown, moist	
					SM-SP		Poorly graded sand with silt (sm-sp), brown, moist. Moisture level higher than overlying strata.	
							Test hole terminated at 36-inches below existing grade	
5								
10								
15								
20								
25								
30								

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Project: **Angelica Creek Park ADA Trail**Project Location: **Reading, PA**Project Number: **REA-20-118**

Log of Boring TH-3

Sheet 1 of 1

Date(s) Drilled	5/20/20	Logged By	J. Hartz	Checked By	
Drilling Method	Hand Methods	Drill Bit Size/Type		Total Depth of Borehole	3 feet bgs
Drill Rig Type		Drilling Contractor	CEG	Approximate Surface Elevation	
Groundwater Level and Date Measured	Not Encountered	Sampling Method(s)	Grab	Hammer Data	
Borehole Backfill	Spoils	Location			

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0				OL		Topsoil, dark brown, moist	
					ML		Sandy silt (ml), brown, moist. Trace amounts of gravel	
					CL		Sandy clay (cl), orangish brown, moist. Trace amounts of gravel.	
							Test hole terminated at 36-inches below existing grade.	
	5							
	10							
	15							
	20							
	25							
	30							


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Project: **Angelica Creek Park ADA Trail**Project Location: **Reading, PA**Project Number: **REA-20-118**

Log of Boring TH-4

Sheet 1 of 1

Date(s) Drilled	5/20/20	Logged By	J. Hartz	Checked By	
Drilling Method	Hand Methods	Drill Bit Size/Type		Total Depth of Borehole	2.5 feet bgs
Drill Rig Type		Drilling Contractor	CEG	Approximate Surface Elevation	
Groundwater Level and Date Measured	Not Encountered	Sampling Method(s)	Grab	Hammer Data	
Borehole Backfill	Spills	Location			

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
0					OL ML		Topsoil, dark brown, dry Sandy silt (ml), brown, dry Cobbles and gravel with sandy silt, tan and orangish brown, dry.	
5							Test hole terminated at 30-inches below existing grade due to refusal from rocky soil conditions encountered.	
10								
15								
20								
25								
30								

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Project: **Angelica Creek Park ADA Trail**
 Project Location: **Reading, PA**
 Project Number: **REA-20-118**

Key to Log of Boring Sheet 1 of 1

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
1	2	3	4	5	6	7	8	9

COLUMN DESCRIPTIONS

- | | |
|--|--|
| <p>1 Elevation (feet): Elevation (MSL, feet).</p> <p>2 Depth (feet): Depth in feet below the ground surface.</p> <p>3 Sample Type: Type of soil sample collected at the depth interval shown.</p> <p>4 Sample Number: Sample identification number.</p> <p>5 Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.</p> | <p>6 Material Type: Type of material encountered.</p> <p>7 Graphic Log: Graphic depiction of the subsurface material encountered.</p> <p>8 MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.</p> <p>9 REMARKS AND OTHER TESTS: Comments and observations regarding drilling or sampling made by driller or field personnel.</p> |
|--|--|

FIELD AND LABORATORY TEST ABBREVIATIONS

CHEM: Chemical tests to assess corrosivity
 COMP: Compaction test
 CONS: One-dimensional consolidation test
 LL: Liquid Limit, percent

PI: Plasticity Index, percent
 SA: Sieve analysis (percent passing No. 200 Sieve)
 UC: Unconfined compressive strength test, Qu, in ksf
 WA: Wash sieve (percent passing No. 200 Sieve)

MATERIAL GRAPHIC SYMBOLS



Lean CLAY, CLAY w/SAND, SANDY CLAY (CL)

Gravel



SILT, SILT w/SAND, SANDY SILT (ML)

Low plasticity PEAT (OL)

Silty SAND (SM)

TYPICAL SAMPLER GRAPHIC SYMBOLS



Auger sampler

Bulk Sample

3-inch-OD California w/ brass rings



CME Sampler

Grab Sample

2.5-inch-OD Modified California w/ brass liners



Pitcher Sample

2-inch-OD unlined split spoon (SPT)

Shelby Tube (Thin-walled, fixed head)

OTHER GRAPHIC SYMBOLS

- ▽ Water level (at time of drilling, ATD)
- ▽ Water level (after waiting)
- Minor change in material properties within a stratum
- Inferred/gradational contact between strata
- Querled contact between strata

GENERAL NOTES

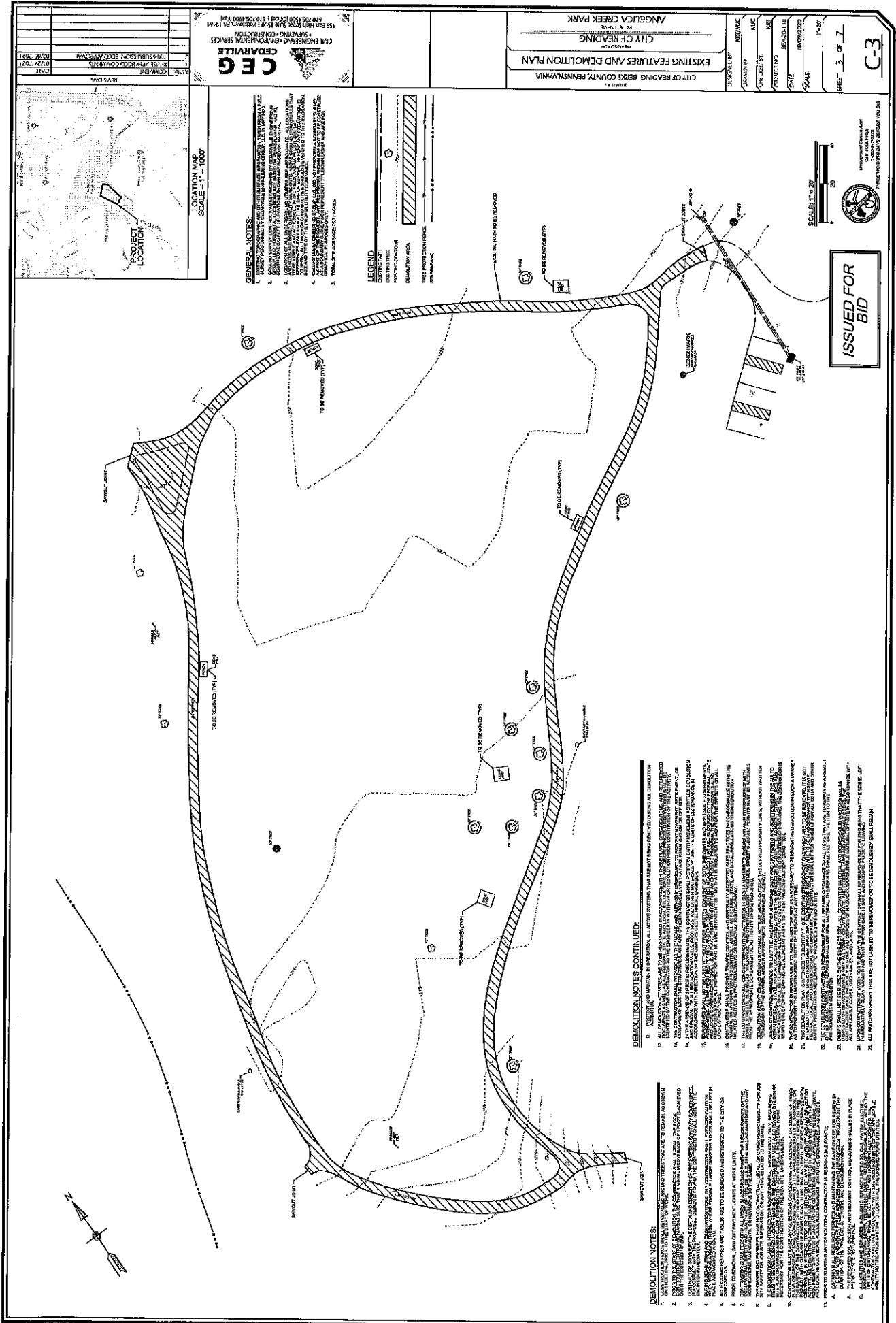
- 1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
- 2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

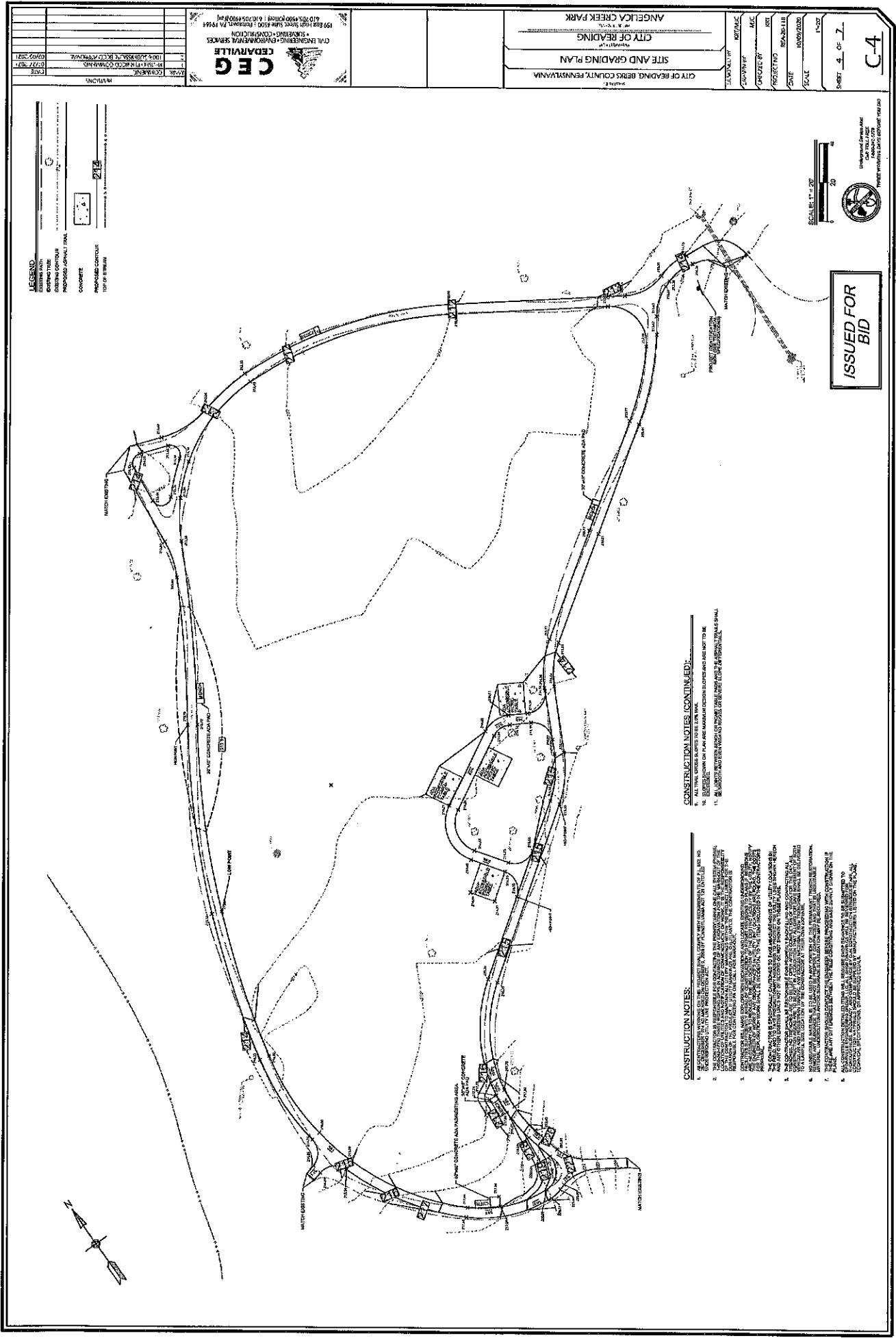
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ATTACHMENT 3

ANGELICA CREEK PARK ADA TRAIL PLANS
SHEETS C-1 TO C-7

[illegible]





CITY OF READING, BERKS COUNTY, PENNSYLVANIA		ANGELICA CREEK PARK	
SITE AND GRADING PLAN		CITY OF READING	
PROJECT NO. 2010-001		DATE 10/10/2010	
SCALE 1"=20'		SHEET 4 OF 7	
DRAWN BY J. J. JONES		CHECKED BY J. J. JONES	
APPROVED BY J. J. JONES		DATE 10/10/2010	
CITY OF READING, BERKS COUNTY, PENNSYLVANIA		ANGELICA CREEK PARK	

CEG CEDARVILLE CIVIL ENGINEERING & ENVIRONMENTAL SERVICES 159 E. 1st Street, Suite 400, Reading, PA 19601 610.375.4500 (office) 610.375.4501 (cell)

ATTACHMENT 4

EROSION AND SEDIMENT CONTROL REPORT AND
BERKS COUNTY CONSERVATION APPROVAL LETTER



**BERKS COUNTY
CONSERVATION DISTRICT**

Conserving Natural Resources for Our Future

February 5, 2021

Cindy Castner
City of Reading, Public Properties Manager
503 N. 6th Street
Reading, PA 19601

**Subject: Angelica Creek Park ADA Trail
BCCD Project ID #ESP-02437
City of Reading, Berks County, PA**

Dear Ms. Castner,

The E&SC Plan is adequate for erosion and sedimentation control during normal weather conditions. The project, originally 0.94 acres, with a total disturbance of 0.94 acres, is located at 575 St. Bernardine Street, in the City of Reading.

The District, in reviewing this plan, does not accept responsibility for project controls and does not authorize any land use changes. Before any construction or earthmoving activities may begin, any pertinent local, state and federal permits must be secured from the agency having specific permitting authority. **It is your responsibility to ensure that City of Reading has a copy of the latest approved construction drawings. Please contact the District when the project is completed so a final inspection can be scheduled.**

If the earthmoving activity described within this plan is not completed within two years from the date of this letter, the review will expire and the plan may be considered inadequate. The plan may then have to be resubmitted to the Conservation District and reviewed again for adequacy.

If further assistance is required, please do not hesitate to contact Shawn Fassl at the Berks County Conservation District, 610-372-4657, extension 217.

Sincerely,

Dean Druckenmiller
District Executive
Berks County Conservation District

cc: Robert Flinchbaugh & Kyle Turner / CEG
City of Reading
File



**EROSION AND SEDIMENT CONTROL NARRATIVE
FOR
ANGELICA CREEK PARK ADA TRAIL**

CITY OF READING, PENNSYLVANIA

October 2020

Prepared for:

**CITY OF READING
815 WASHINGTON STREET
READING, PA 19601**

IMPORTANT

*A copy of this Erosion and Sediment
Control Plan must be present on
site at all times during the work.*

Prepared By:

CEDARVILLE Engineering Group, LLC
159 E. High Street, Suite 500
Pottstown, PA 19464
P: 610-705-4500
F: 610-705-4900
www.cedarvilleeng.com
 @cedarvilleeng



**Federally Certified 8(a) EDWOSB
State Certified DBE/WBE**

TABLE OF CONTENTS

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3.0 E&S PLANNING AND DESIGN.....	4
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9.0 RIPARIAN BUFFERS.....	6
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FIGURES

FIGURE 1 SITE LOCATION MAP

APPENDICES

APPENDIX A SOIL SURVEY INFORMATION

APPENDIX B GEOLOGY INFORMATION

APPENDIX C EROSION AND SEDIMENT CONTROL CALCULATIONS

APPENDIX D PLAN PREPARER'S EXPERIENCE

EROSION AND SEDIMENT CONTROL PLAN

ANGELICA CREEK PARK ADA TRAIL CITY OF READING READING, PENNSYLVANIA

1.0 INTRODUCTION

The Erosion and Sediment Control (E&S) Plan for the Angelica Creek Park ADA Trail (Project) includes this narrative, appended supporting information and companion Erosion and Sediment Control Plan Drawings (Drawings). The E&S Plan described in this narrative was developed to comply with the requirements of Chapter 102, Title 25 of the Pennsylvania Administrative Code created under the Clean Streams Law. The Pennsylvania Department of Environmental Protection (PADEP) Erosion and Sediment Pollution Control Program Manual, dated March 2012 (Manual), was used as a primary reference for design and selection of erosion and sediment control Best Management Practices (BMPs) to be implemented during the project.

2.0 PROJECT DESCRIPTION

The project consists of removal of the existing asphalt trail and site amenities and installation of a new asphalt trail, benches, and tables, including concrete pads, that all are ADA accessible in accordance with the United States Access Board Outdoor Recreation Access Routes Guidelines. A Project Site Location Map is included as **Figure 1**.

The site is a park and trail network. All existing non-impervious areas within the project area are trail and mixed use paths. The construction for the proposed improvements will impact approximately 0.91 acres. The drainage areas flows overland to a low point at the north end of the project area where it collects and drains into Angelica Creek.

3.0 E&S PLAN PLANNING AND DESIGN §102.4(b)(4)

E&S Plan minimizes extent and duration of earth disturbance

The limit of disturbance (LOD) is the area required to conduct work on the proposed site. The LOD is limited to only the area that is necessary for construction and the E&S Plan is staged to minimize the disturbance area at any point in time

E&S Plan maximizes protection of existing drainage features and vegetation

The proposed improvements are positioned on the site to minimize grading and reduce disturbance to existing property.

E&S Plan minimizes soil compaction

Soil compaction shall be limited to the access road and equipment areas.

E&S Plan utilizes other measures or controls that prevent or minimize generation of increased stormwater runoff

To minimize any increase in stormwater runoff, the existing trail is proposed to be replaced in kind. As the only additional proposed impervious area is the bench and table pads, any increase in stormwater runoff is de minimis.

4.0 EXISTING CONDITIONS

Existing topographic features §102.4(b)(5)(i)

The existing site is a park with trails, recreational facilities, and scenic natural views.

Past and present land uses §102.4(b)(5)(iii)

The site has been a woodland area and park site for the past 50 years. New park recreational facilities and trails have been constructed over the years to enhance and protect the natural scenery and wildlife.

Proposed alteration and land use §102.4(b)(5)(iii)

The City of Reading proposes to remove the existing asphalt trail and site amenities and install a new asphalt trail, benches, and tables, including concrete pads, that all are ADA accessible in accordance with the United States Access Board Outdoor Recreation Access Routes Guidelines. Grading and placement of amenities along the trail are to facilitate park usage by residents and guests alike. Proposed earth disturbance activities described in this plan include the removal and installation of the trail pathway and amenities and total 0.91 acres.

5.0 SOILS AND GEOLOGY

Soils §102.4(b)(5)(ii)

The National Resources Conservation Service (NRCS) Soils Survey Summary and Soils Map of the project area are included in **Appendix A**. Specifically, the following soil types are shown to be present:

Soil Name	Map Unit Symbol	Hydrologic Soil Group	Drainage class
Hazleton very channery loam	HeF	A	Well Drained
Holly silt loam	Ho	B/D	Poorly Drained
Laidig gravelly loam, 8 to 15 percent slopes	LaC	B	Well Drained
Urban land-Duffield complex, 0 to 8 percent slopes	UmB	Not Rated	Not Rated
Water	W	Not Rated	Not Rated

Geologic Conditions §102.4(b)(5)(xii)

According to the Pennsylvania DCNR Interactive Map, the site is underlain by Sands of Presque Isle and Trenton Gravel. A map of the site Geology can be found in **Appendix B**.

Potential to cause pollution §102.4(b)(5)(xii)

The exposure of naturally occurring geologic formations or soil conditions that may have the potential to cause pollution during construction activities is not anticipated.

6.0 RECEIVING SURFACE WATERS §102.4(b)(5)(v)

The surface watercourse within the site which may receive runoff is Angelica Creek which drains to the Schuylkill River. The watercourse classification, according to Title 25, Chapter 93 of the Pennsylvania Code, for the stream is Cold Water Fishery, Migratory Fish (CWF, MF).

7.0 WRITTEN DESCRIPTION OF E&S BMPs §102.4(b)(5)(vi)

Compost filter sock (CFS) – will be installed prior to earth disturbance activities to mitigate the potential for sediment-laden stormwater associated with the construction activities to flow from the site. Rock filter outlets will be installed wherever a breach occurs in the sediment barrier.

Compost sock washout - provided for cleaning chutes, mixers, and hoppers of concrete delivery vehicles.

Pumped water filter bags - will be used to treat stormwater or groundwater pumped from excavation areas prior to discharge over stable areas.

Rock construction entrance - will be installed where the project site accesses from the public or private roads prior to the commencement of earth disturbance activities.

Rock filter outlets - will be installed wherever a breach occurs in the sediment barrier.

Concrete wash out – will be installed near the site entrance for use by all concrete trucks upon the completion of concrete pours to wash the truck out.

Diligent maintenance of the erosion and sediment control BMP measures will be conducted throughout the duration of the earth disturbance activities.

8.0 POTENTIAL THERMAL IMPACTS §102.4(b)(5)(xiii)

No potential thermal impacts to surface waters are anticipated during construction activities. The increase in stormwater runoff associated with the project will be fully managed by the existing site features. The impervious area will be minimized by replacing the existing impervious area in kind.

9.0 RIPARIAN BUFFERS §102.4(b)(5)(xv)

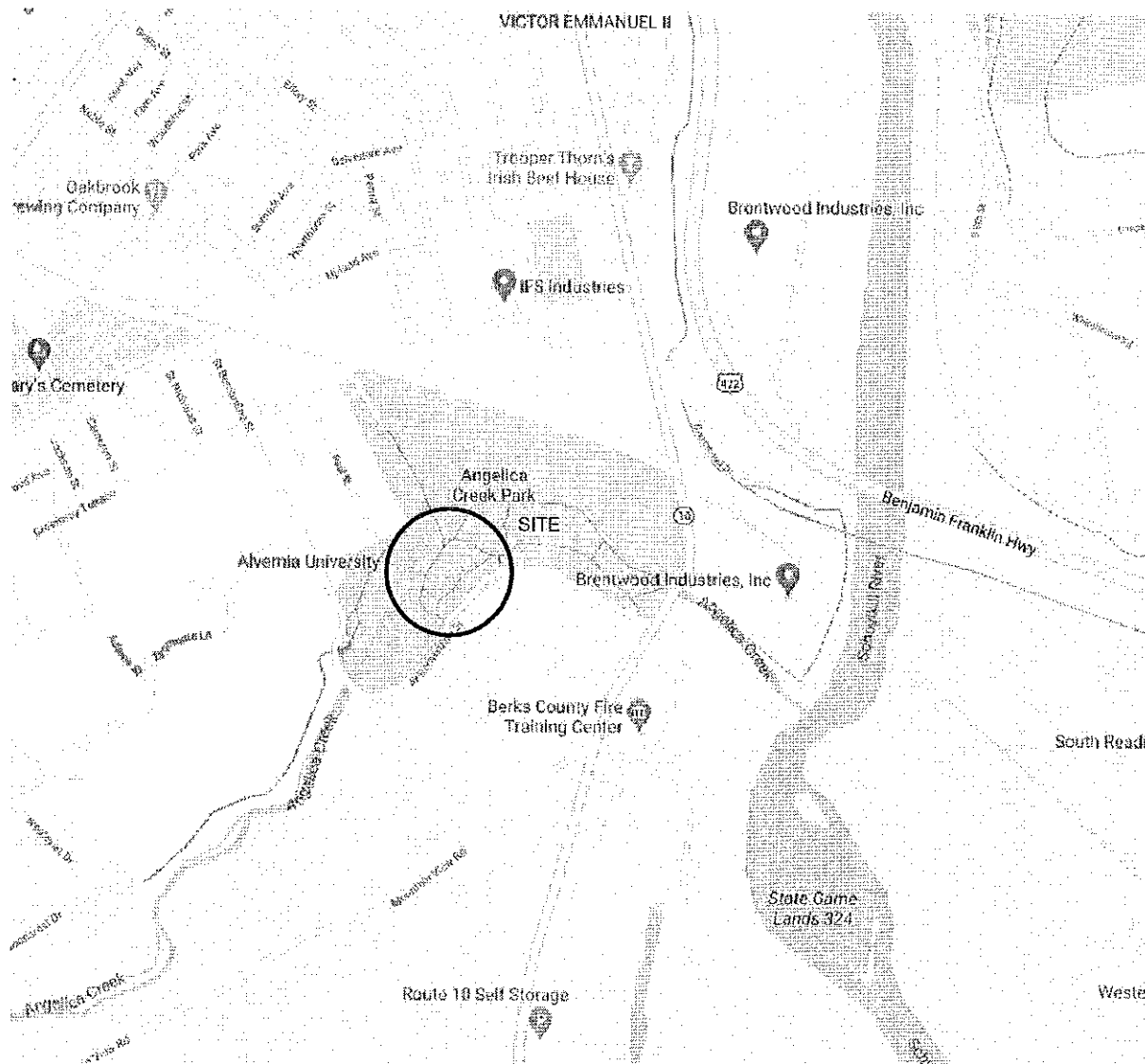
The project does not discharge to a river, stream, lake, pond, or reservoir with a designated use of high quality or exceptional value. Therefore, there are no existing or proposed riparian buffers or riparian forest buffers on the site and none are required.

10.0 ANTIDEGRADATION ANALYSIS

There are no Special Protection Waters / Watersheds (HW/EV Waters and EV Wetlands) located within the project boundary. As such, antidegradation analysis is not required.

FIGURE 1

SITE LOCATION MAP



PROJECT NO.

REA-20-118

DATE:

06/02/2020

SCALE:

1"=1000'


CEG
CEDARVILLE

 CML ENGINEERING • ENVIRONMENTAL SERVICES
 • SURVEYING • CONSTRUCTION

 159 East High Street, Suite #500 | Pottstown, PA 19464
 610.705.4500 (Office) | 610.705.4900 (Fax)

 SITUATE IN
 CITY OF READING, PENNSYLVANIA
LOCATION MAP

 PREPARED FOR
CITY OF READING

 PROJECT NAME
ANGELICA CREEK PARK ADA TRAIL

DRAWN BY:

MJC

CHECKED BY:

KRT

SHEET NO.

1 OF 1

APPENDIX A

SOIL SURVEY INFORMATION

Hydrologic Soil Group—Berks County, Pennsylvania



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

5/19/2020
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: [Coordinate System: Web Mercator \(EPSG:3857\)](#)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Berks County, Pennsylvania
Survey Area Data: Version 17, Sep 17, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 18, 2011—Mar 16, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HeF	Hazleton very channery loam, 25 to 60 percent slopes, extremely stony	A	2.6	16.4%
Ho	Holly silt loam	B/D	6.7	42.1%
LaC	Laidig gravelly loam, 8 to 15 percent slopes	B	2.7	16.7%
UmB	Urban land-Duffield complex, 0 to 8 percent slopes		2.0	12.7%
W	Water		1.9	12.1%
Totals for Area of Interest			15.9	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

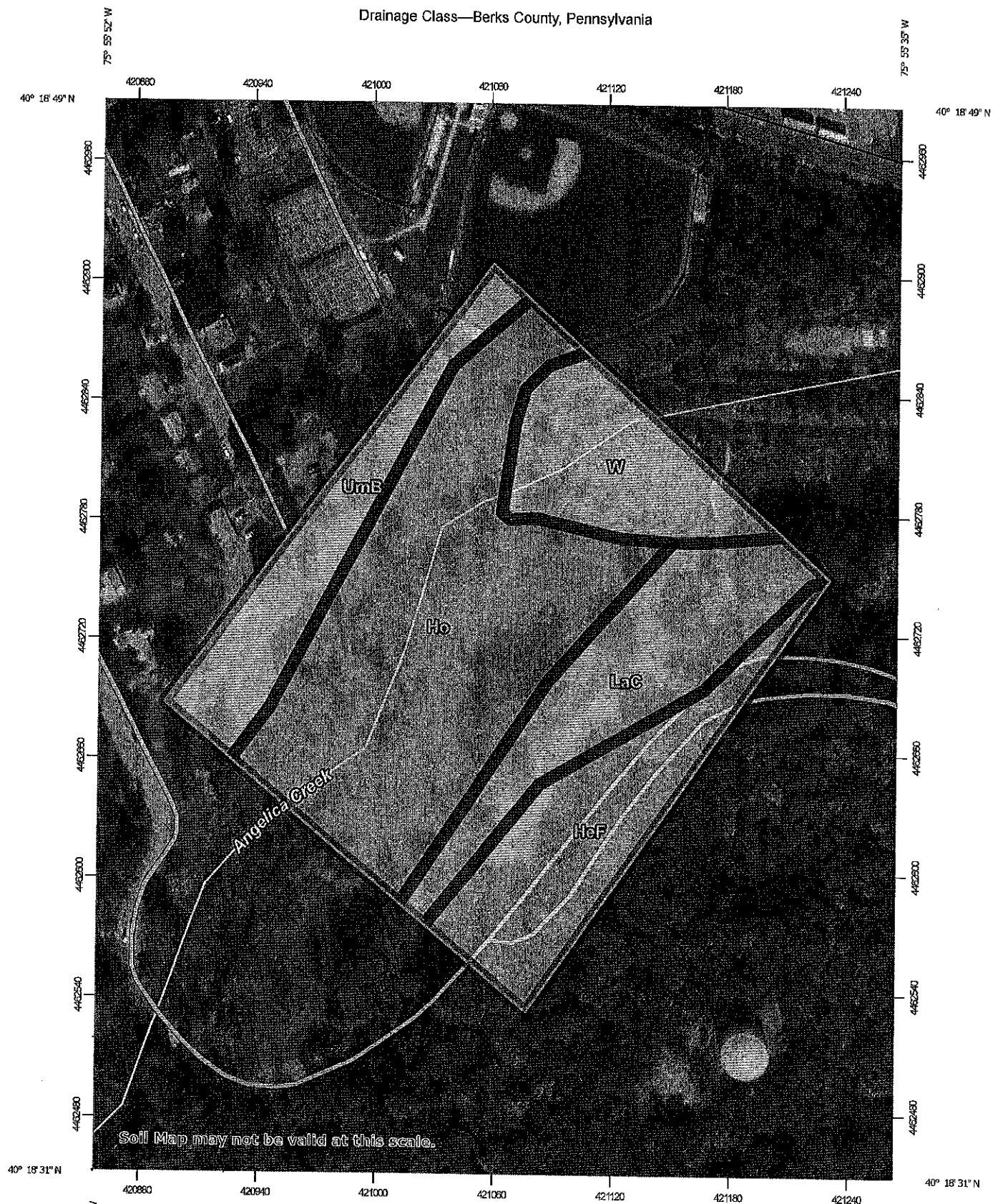
Rating Options

Aggregation Method: Dominant Condition

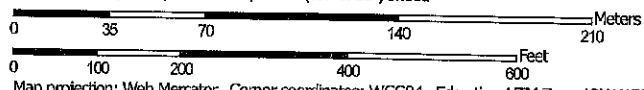
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Drainage Class—Berks County, Pennsylvania



Map Scale: 1:2,620 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

5/19/2020
Page 1 of 3

Drainage Class—Berks County, Pennsylvania

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

Excessively drained

Somewhat excessively drained

Well drained

Moderately well drained

Somewhat poorly drained

Poorly drained

Very poorly drained

Subaqueous

Not rated or not available

Soil Rating Lines

Excessively drained

Somewhat excessively drained

Well drained

Moderately well drained

Somewhat poorly drained

Poorly drained

Very poorly drained

Subaqueous

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

Soil Rating Points

Excessively drained

Somewhat excessively drained

Well drained

Moderately well drained

Somewhat poorly drained

Poorly drained

Very poorly drained

Subaqueous

Not rated or not available

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Berks County, Pennsylvania
Survey Area Data: Version 17, Sep 17, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 18, 2011—Mar 16, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Drainage Class

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HeF	Hazleton very channery loam, 25 to 60 percent slopes, extremely stony	Well drained	2.6	16.4%
Ho	Holly silt loam	Poorly drained	6.7	42.1%
LaC	Laidig gravelly loam, 8 to 15 percent slopes	Well drained	2.7	16.7%
UmB	Urban land-Duffield complex, 0 to 8 percent slopes		2.0	12.7%
W	Water		1.9	12.1%
Totals for Area of Interest			15.9	100.0%

Description

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

Rating Options

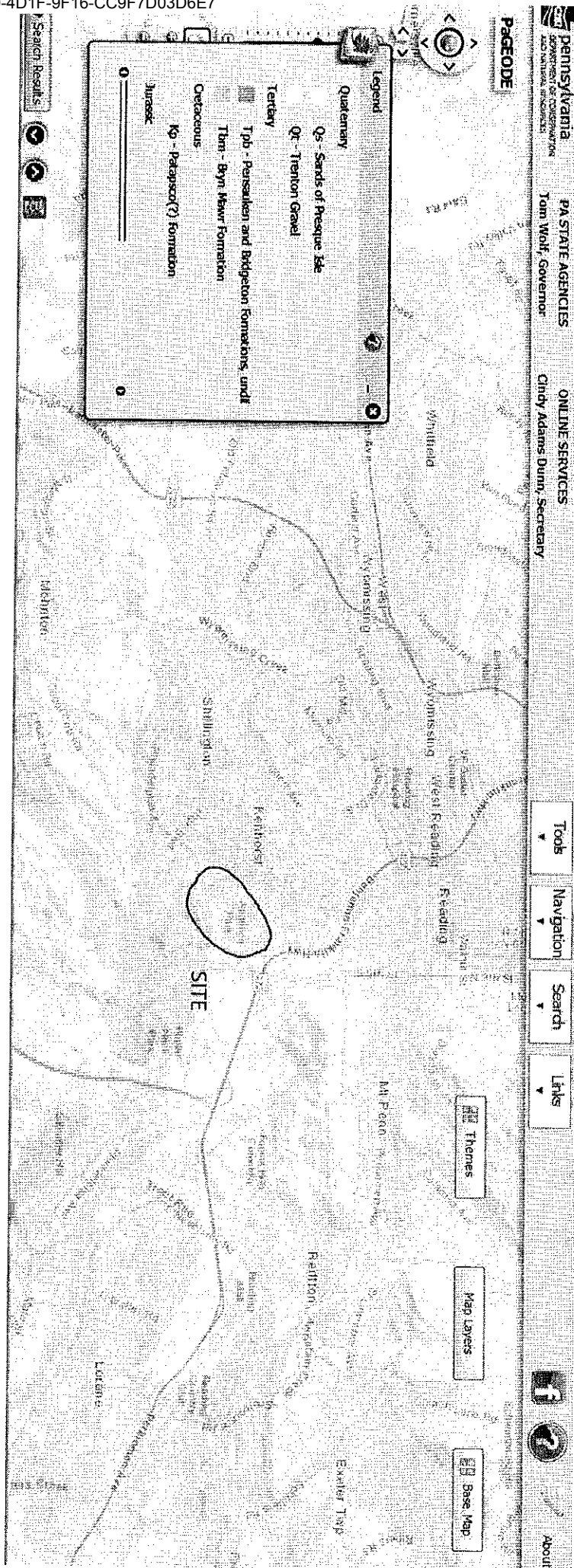
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX B

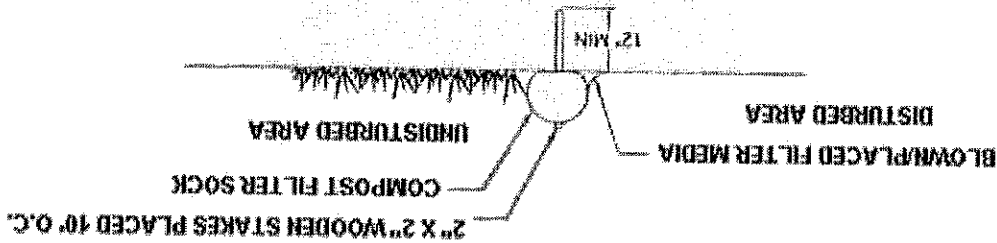
GEOLOGY INFORMATION



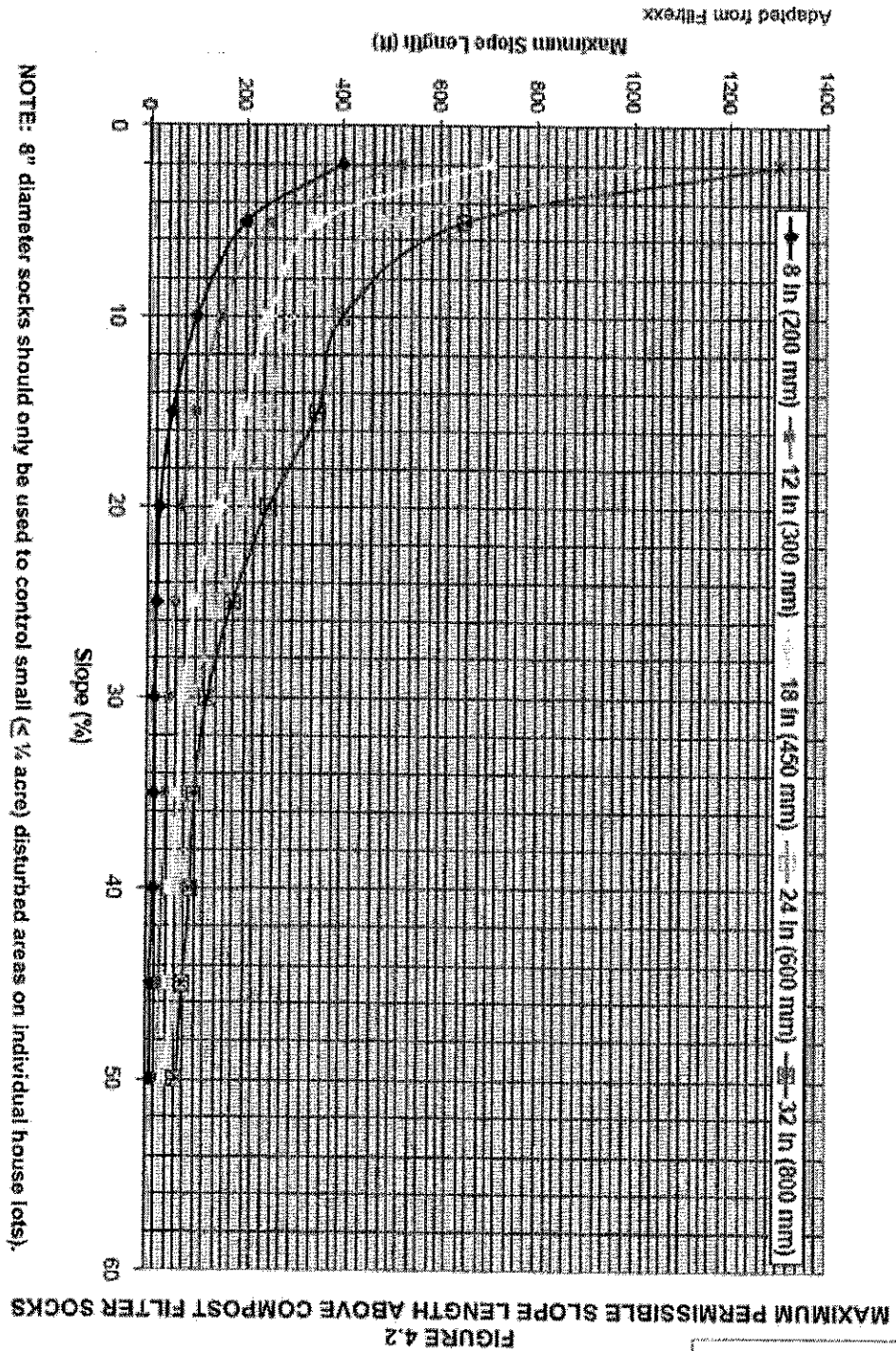
APPENDIX C
EROSION AND SEDIMENT CONTROL CALCULATIONS



SOCK NO.	DIA (IN)	LOCATION	SLOPE LENGTH (FT)	SLOPE (%)
1	12	North-Center of the trail path, south of the trail	20.0	2.50%
2	12	East of the North-East entrance to the trail path	75.0	4.00%
3	12	Along the East of the trail path	484.0	1.03%
4	12	North-East of the construction entrance	91.0	4.40%
5	12	East of the construction entrance	81.0	6.17%
6	12	North of the picnic area	133.0	6.02%
7	12	North-East of the South-West entrance to the trail path	79.0	11.39%
8	12	North of the South-West entrance to the trail path, immediately downslope of steep slopes	58.0	13.79%
9	12	path, west of Silt Sock #8	72.0	10.42%
10	12	East of the Western portion of the trail	73.0	2.74%
11	12	North-West of the trail, North of Silt Sock #10	92.0	2.39%
12	12	North-West of the trail, North-East of Silt Sock #11	126.0	1.59%



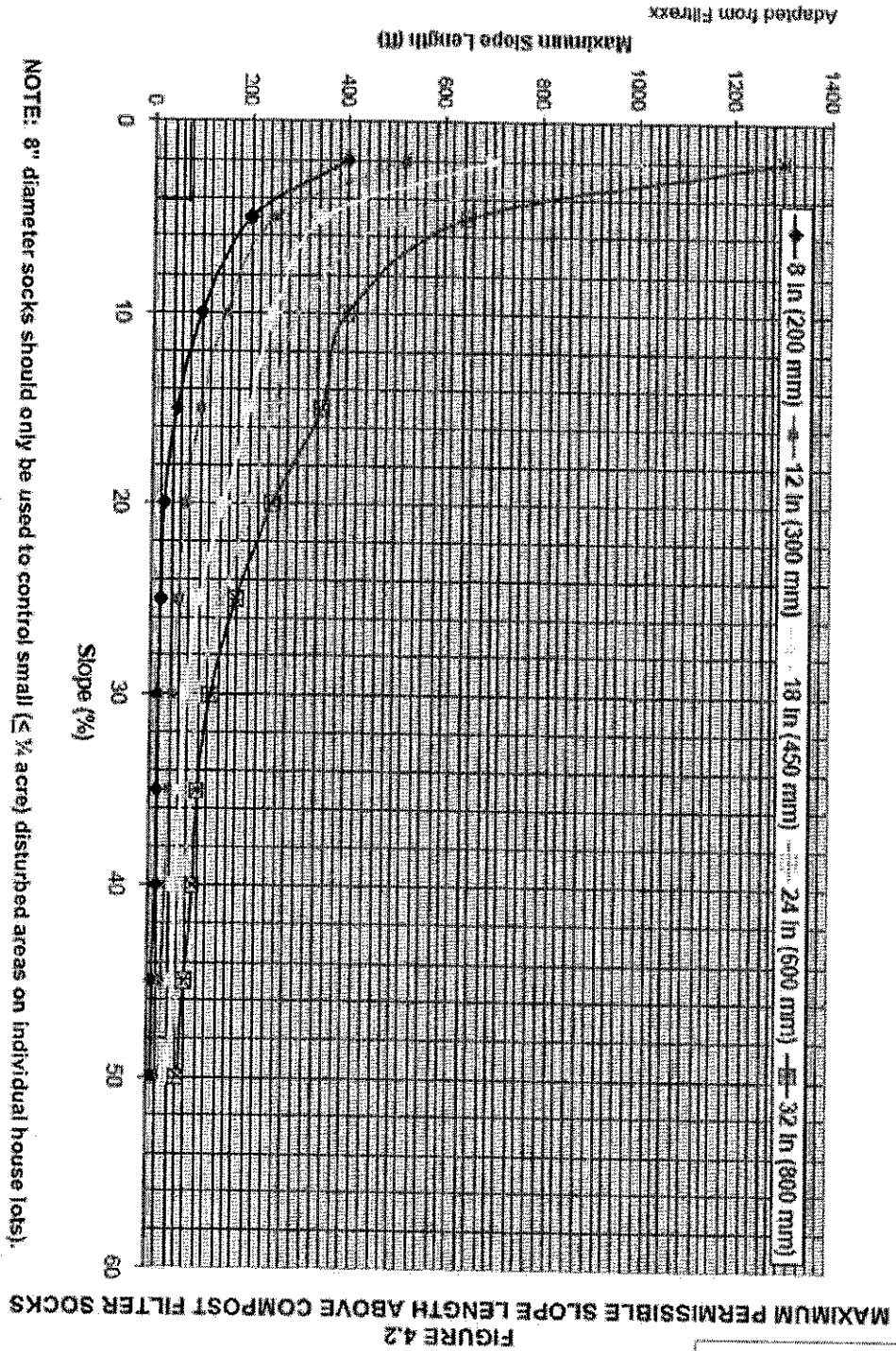
PROJECT NAME: Angelica Creek Park ADA Trail
LOCATION: 575 Saint Bernardine Street, Reading PA 19607
PREPARED BY: Michael Chatlin
CHECKED BY: Kyle R. Turner, P.E.
DATE: 07/15/20
REVISED:



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SILT SOCK #1

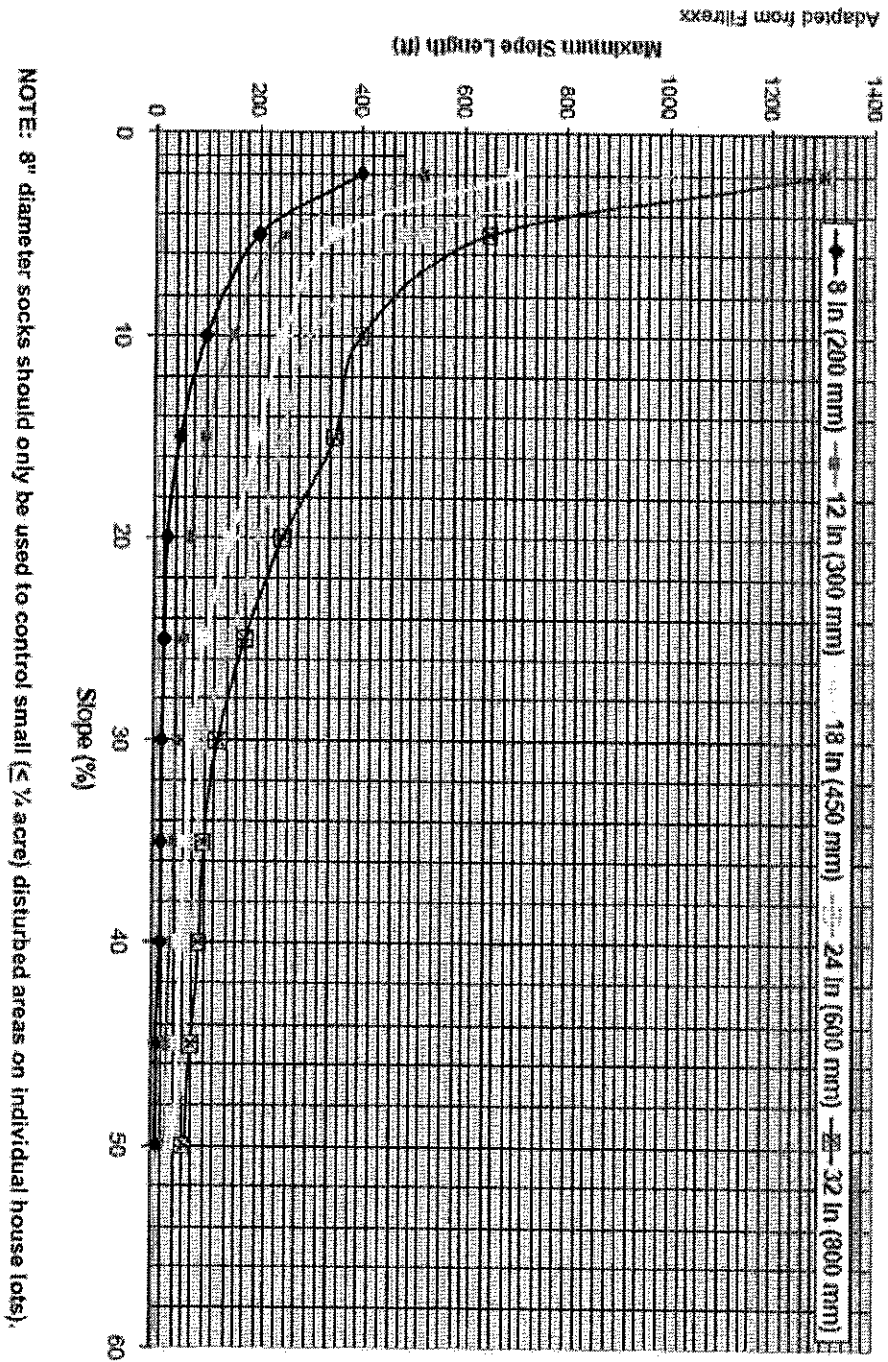
363-2134-008 / March 31, 2012 / Page 66



SILT SOCK #2

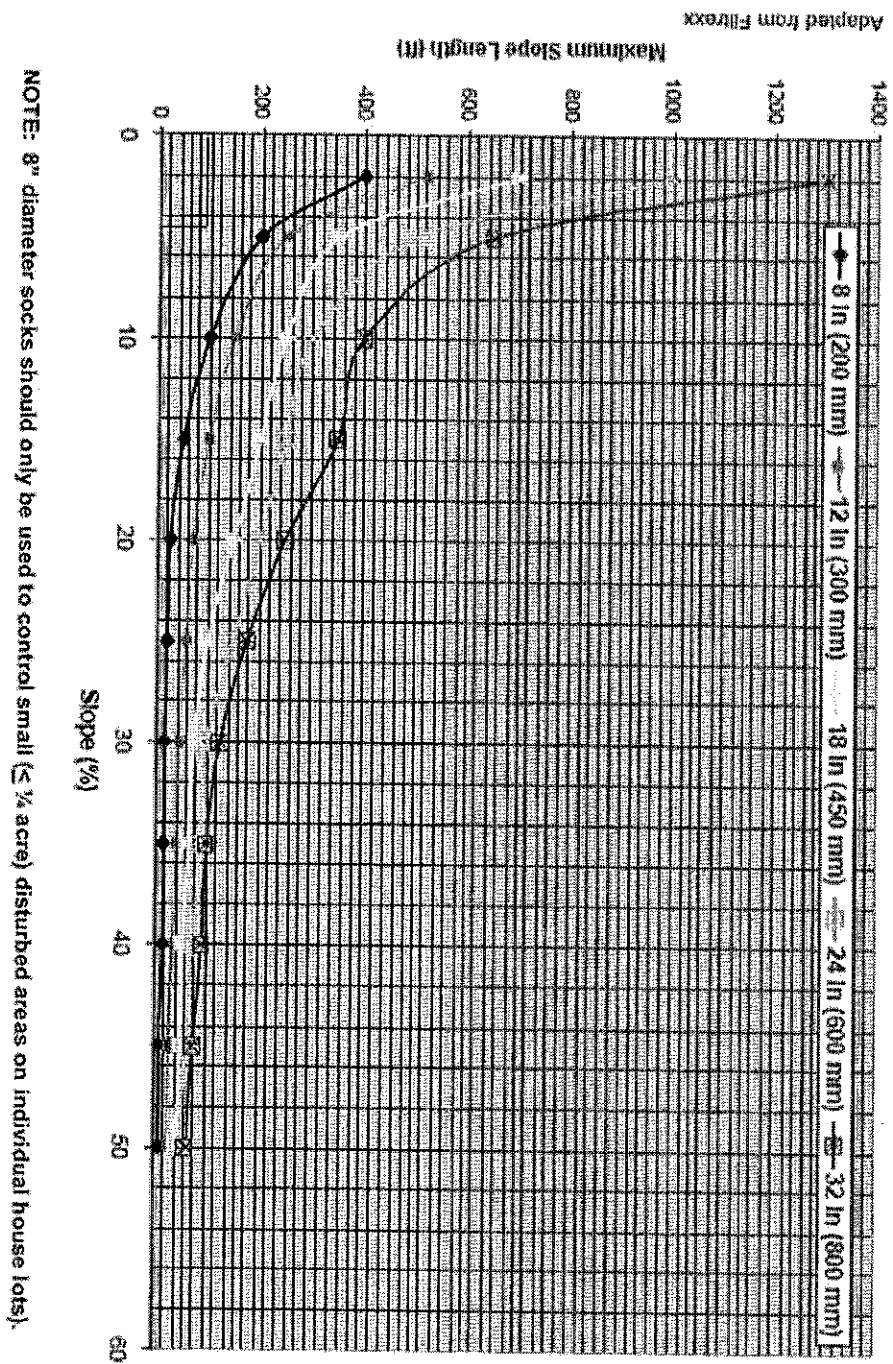
SILT SOCK #3

FIGURE 4.2
MAXIMUM PERMISSIBLE SLOPE LENGTH ABOVE COMPOST FILTER SOCKS



SILT SOCK #4

FIGURE 4.2
MAXIMUM PERMISSIBLE SLOPE LENGTH ABOVE COMPOST FILTER SOCKS



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Adapted from Filtraxx

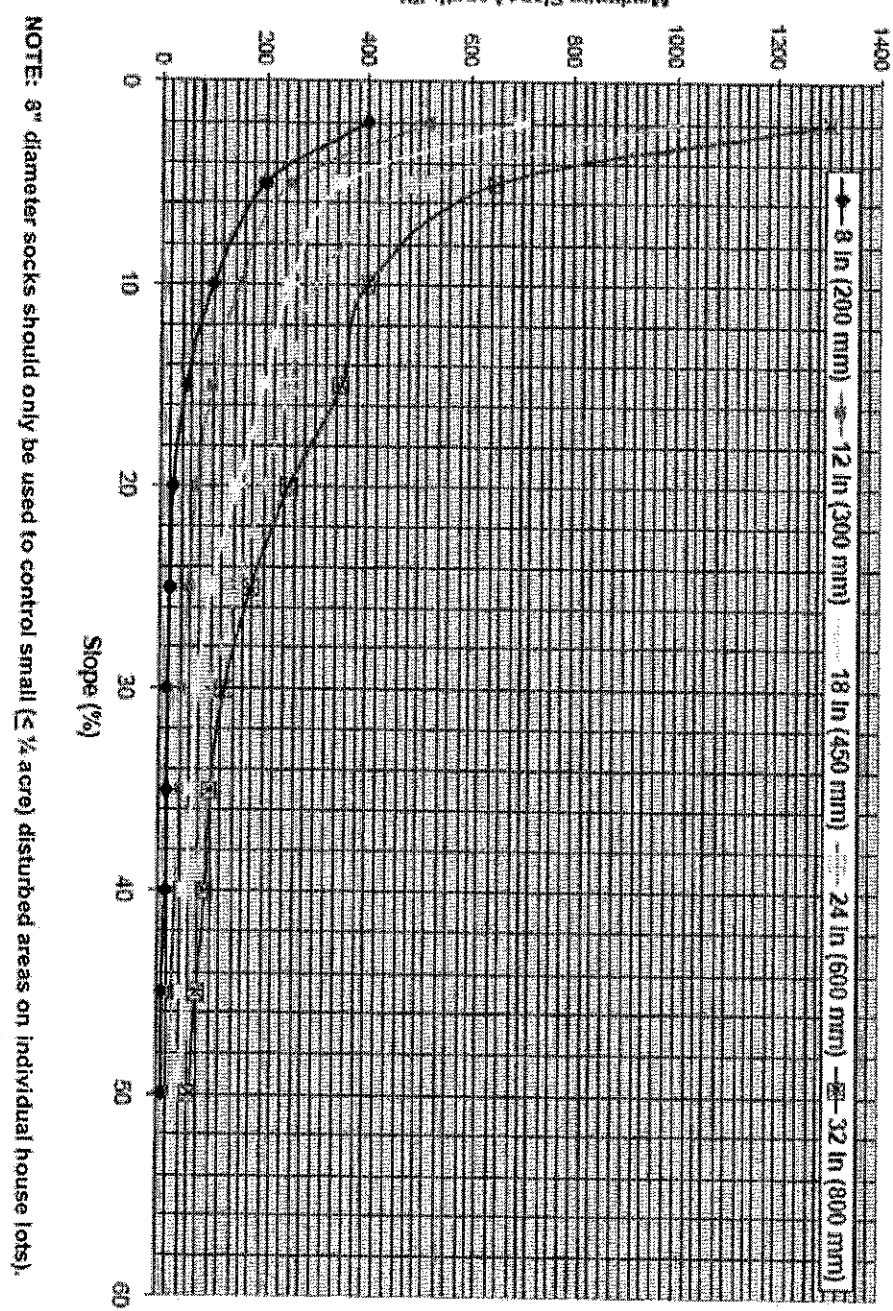
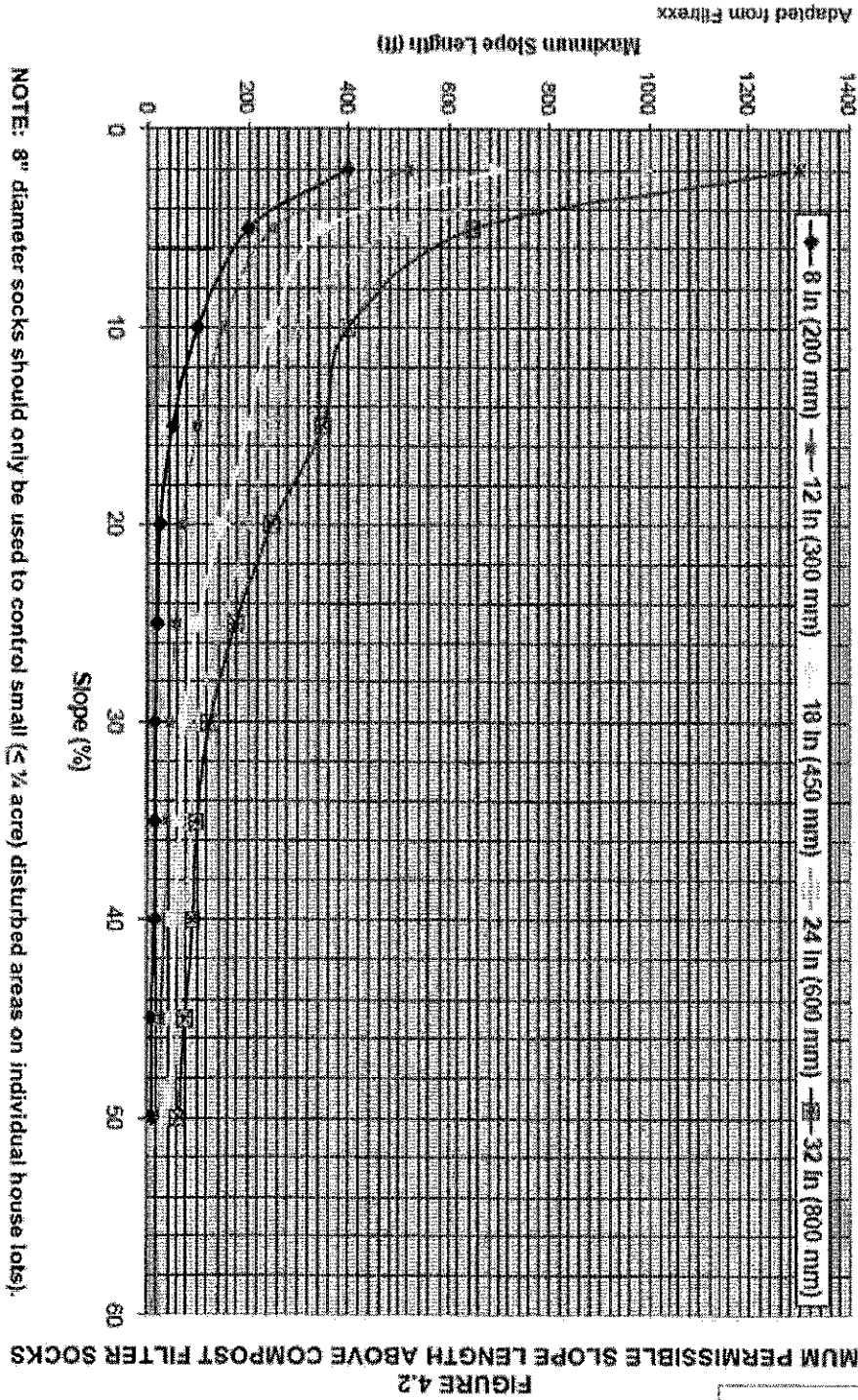


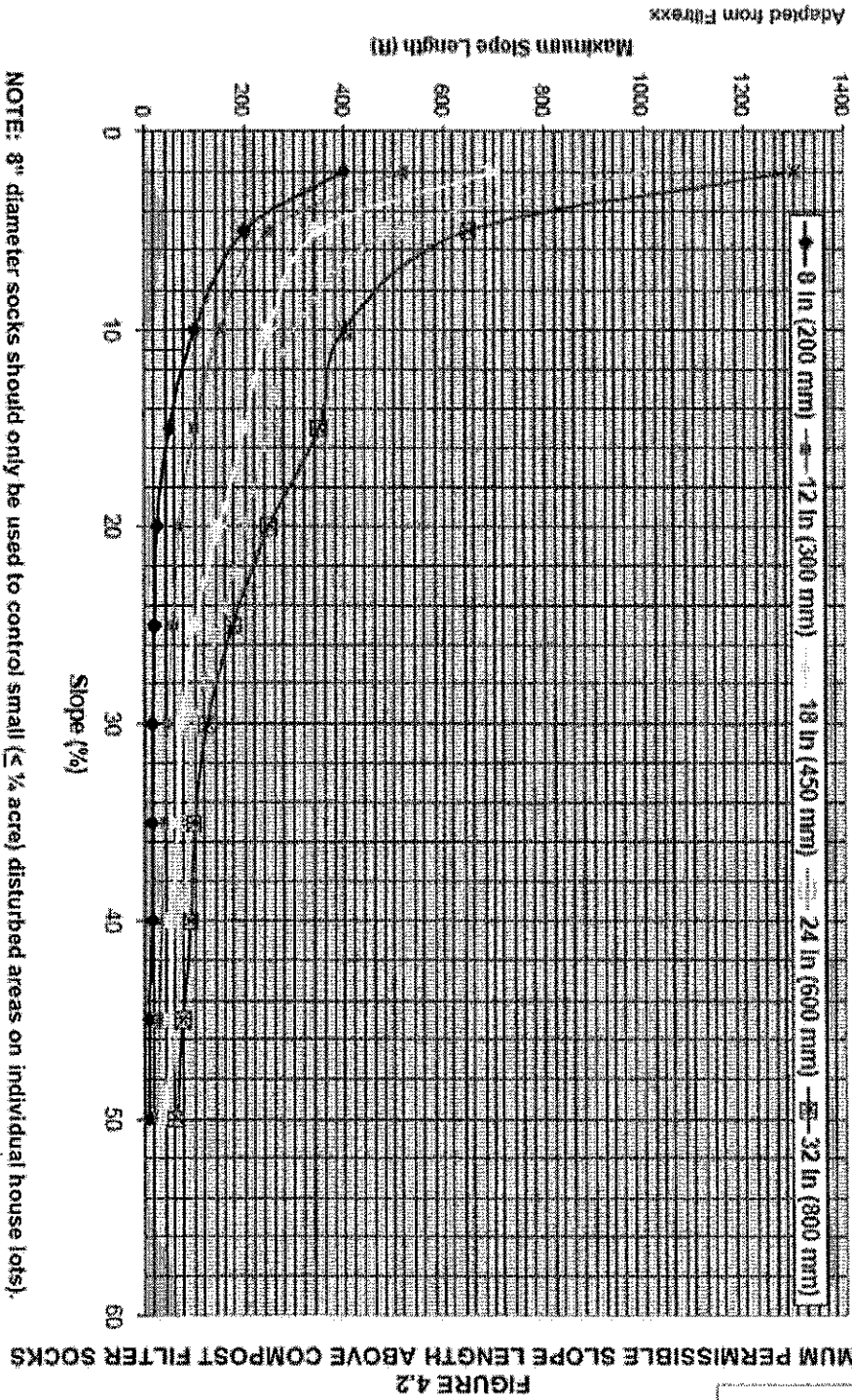
FIGURE 4.2
MAXIMUM PERMISSIBLE SLOPE LENGTH ABOVE COMPOST FILTER SOCKS

NOTE: 8" diameter socks should only be used to control small ($\leq \frac{1}{4}$ acre) disturbed areas on individual house lots.

SILT SOCK #5

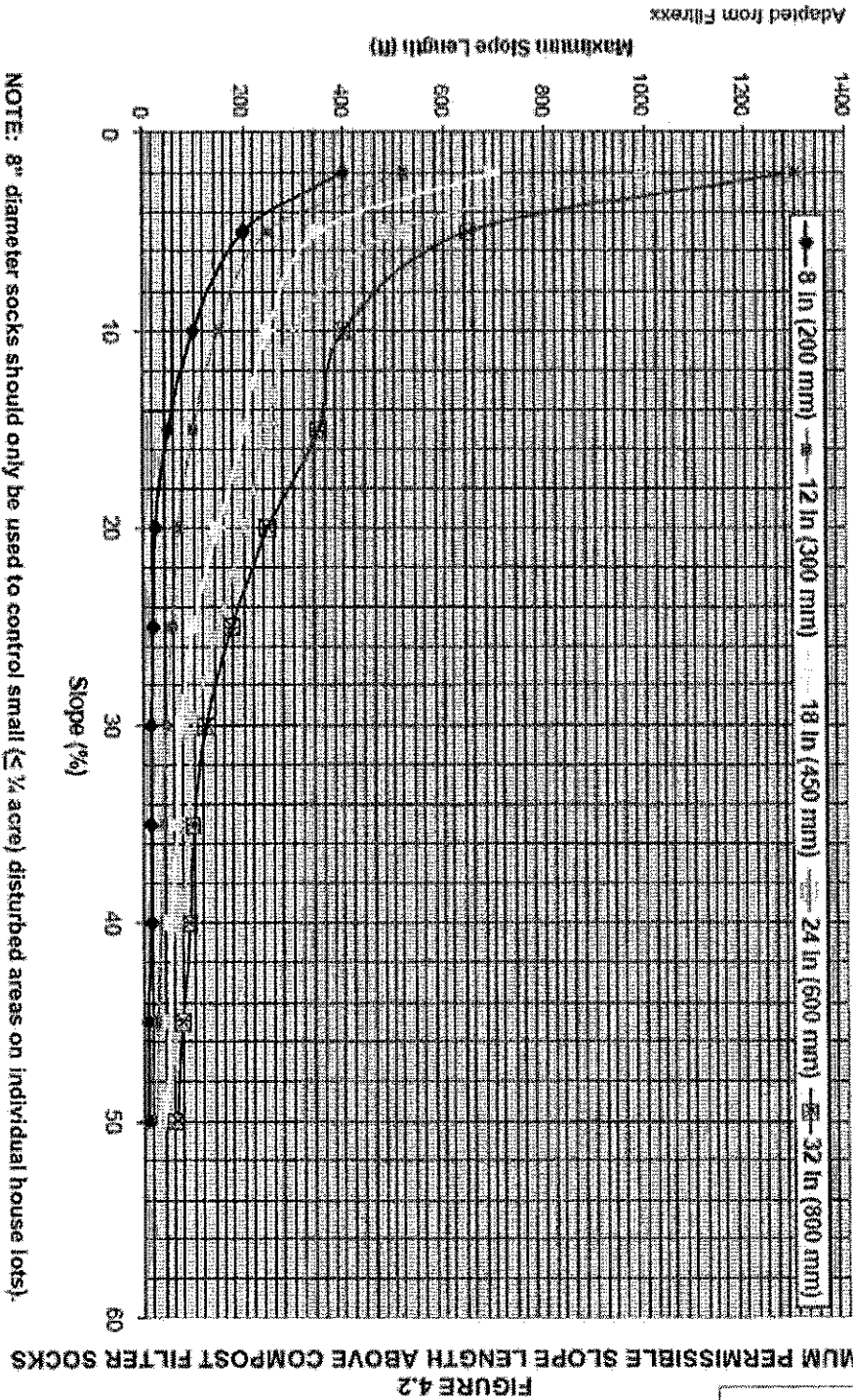
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SILT SOCK #7

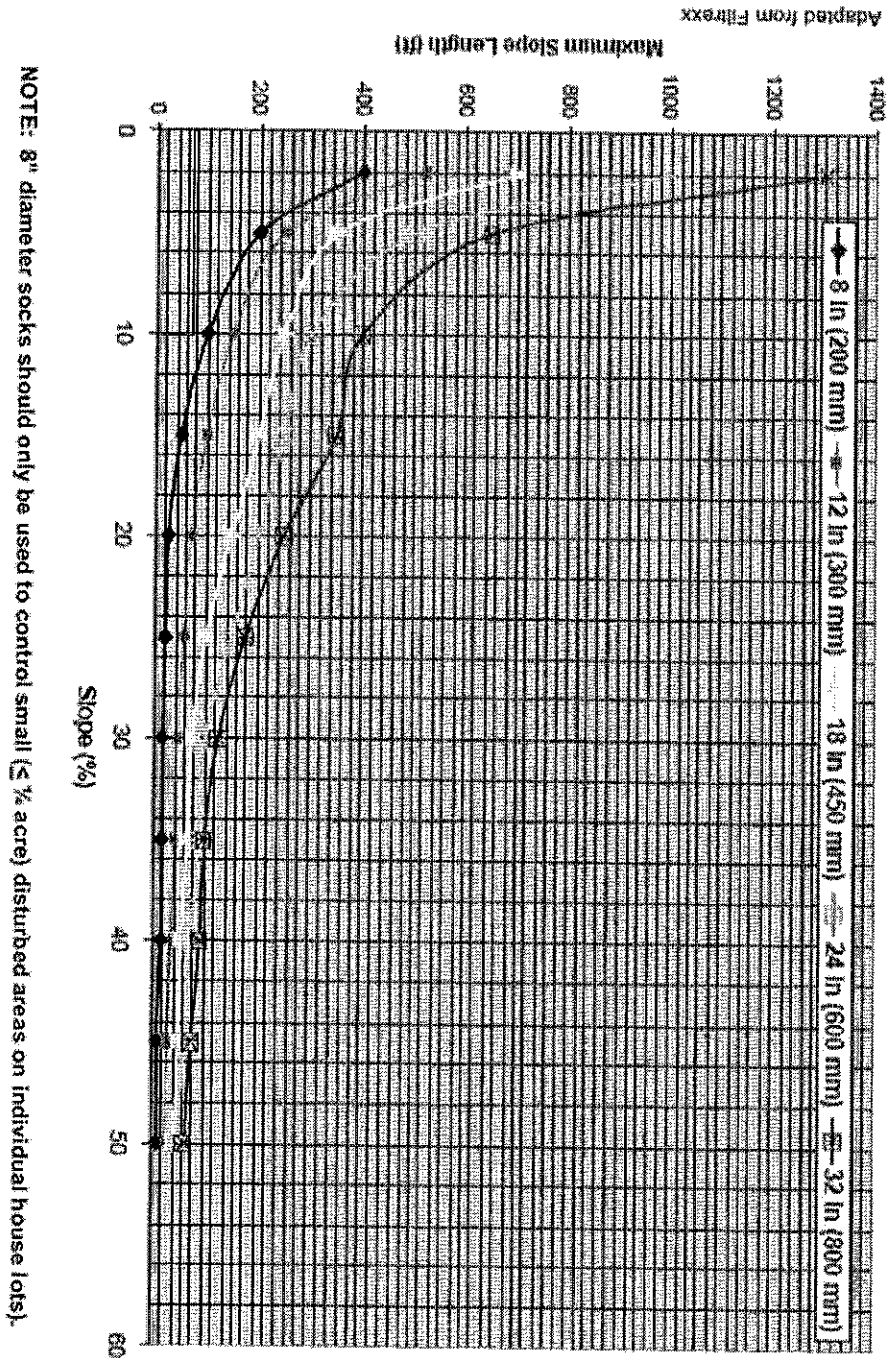


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SILT SOCK #8

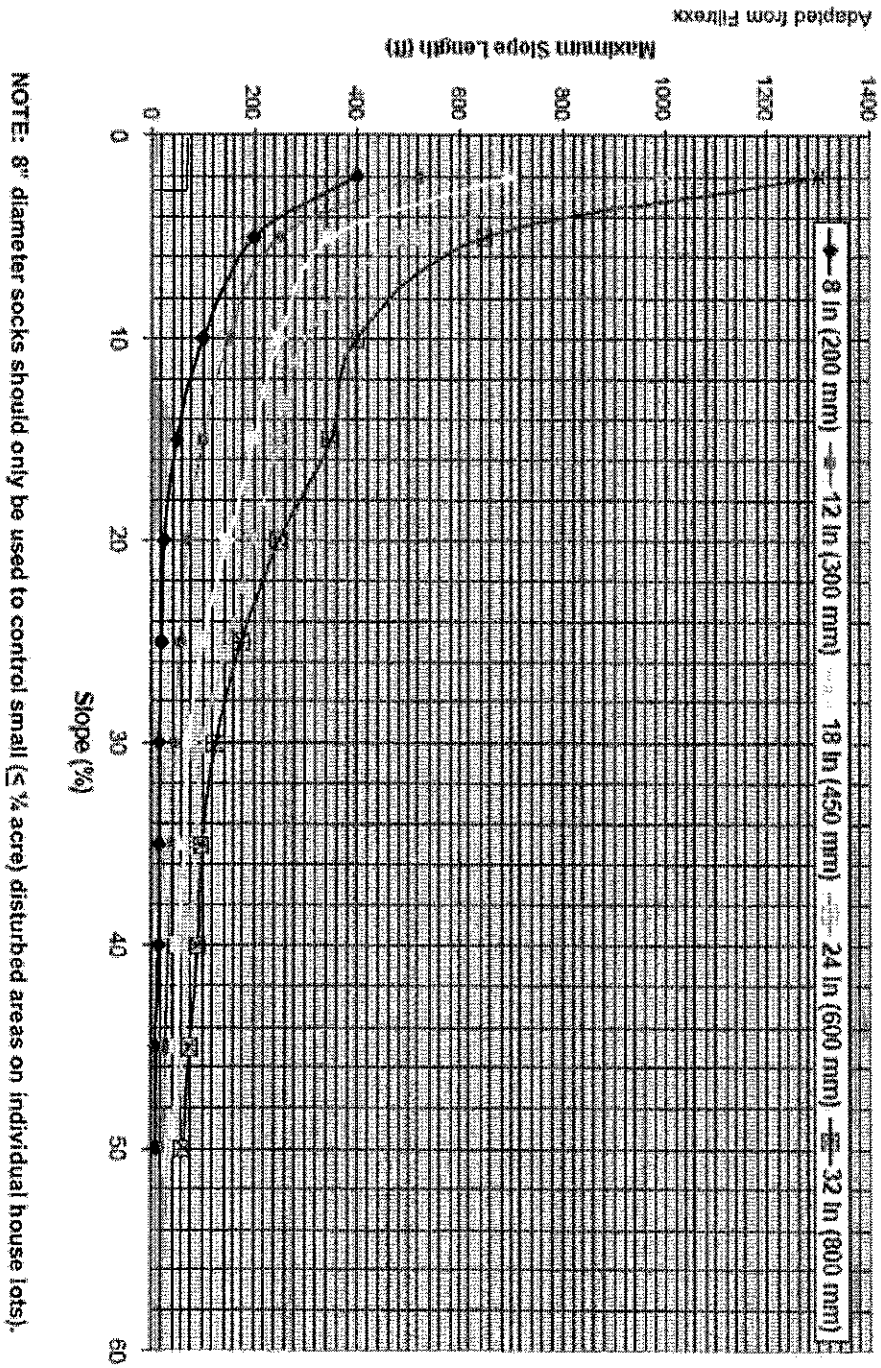
SILT SOCK #9

FIGURE 4.2
MAXIMUM PERMISSIBLE SLOPE LENGTH ABOVE COMPOST FILTER SOCKS



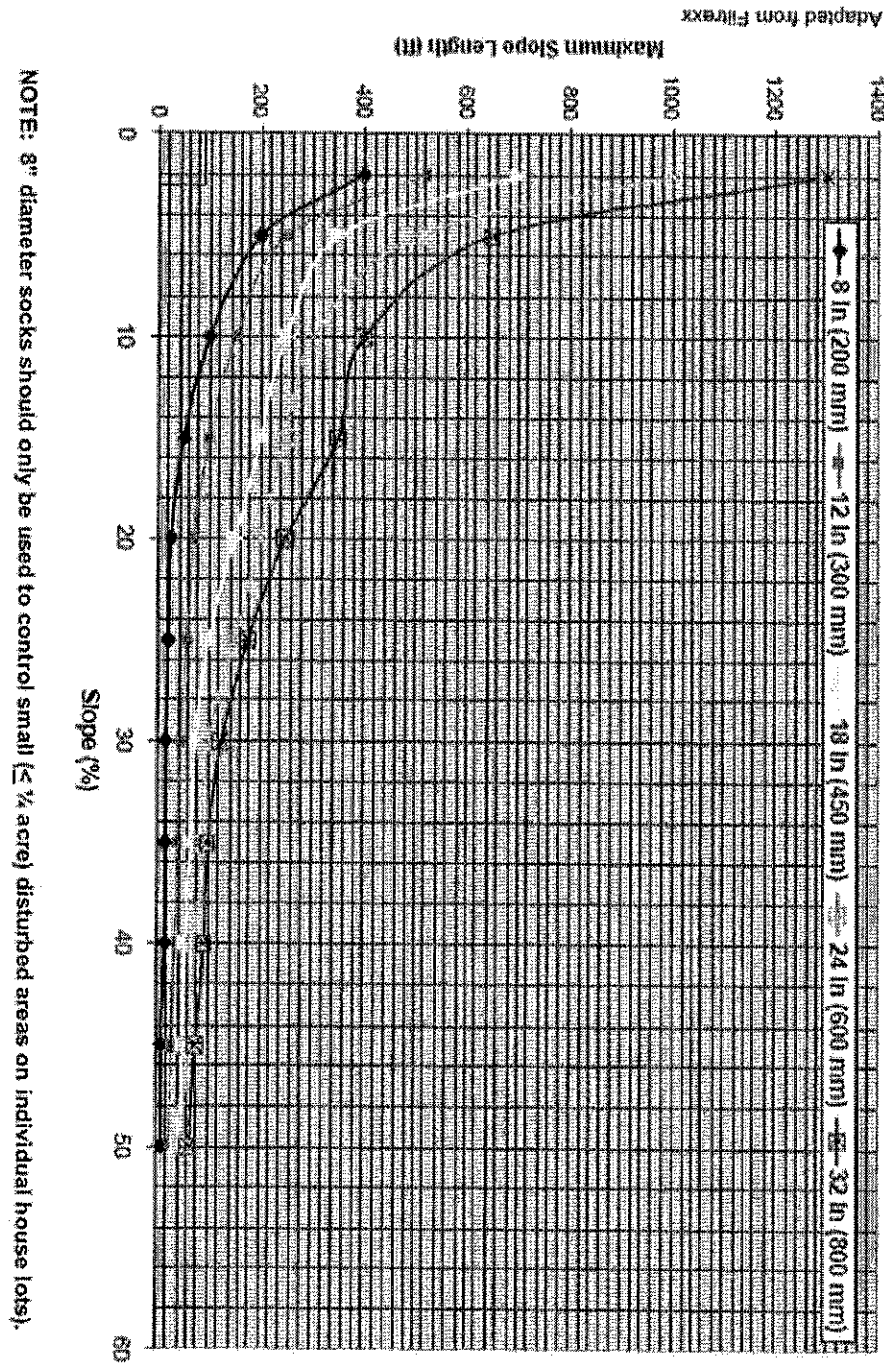
SILT SOCK #10

FIGURE 4.2
MAXIMUM PERMISSIBLE SLOPE LENGTH ABOVE COMPOST FILTER SOCKS



SILT SOCK #11

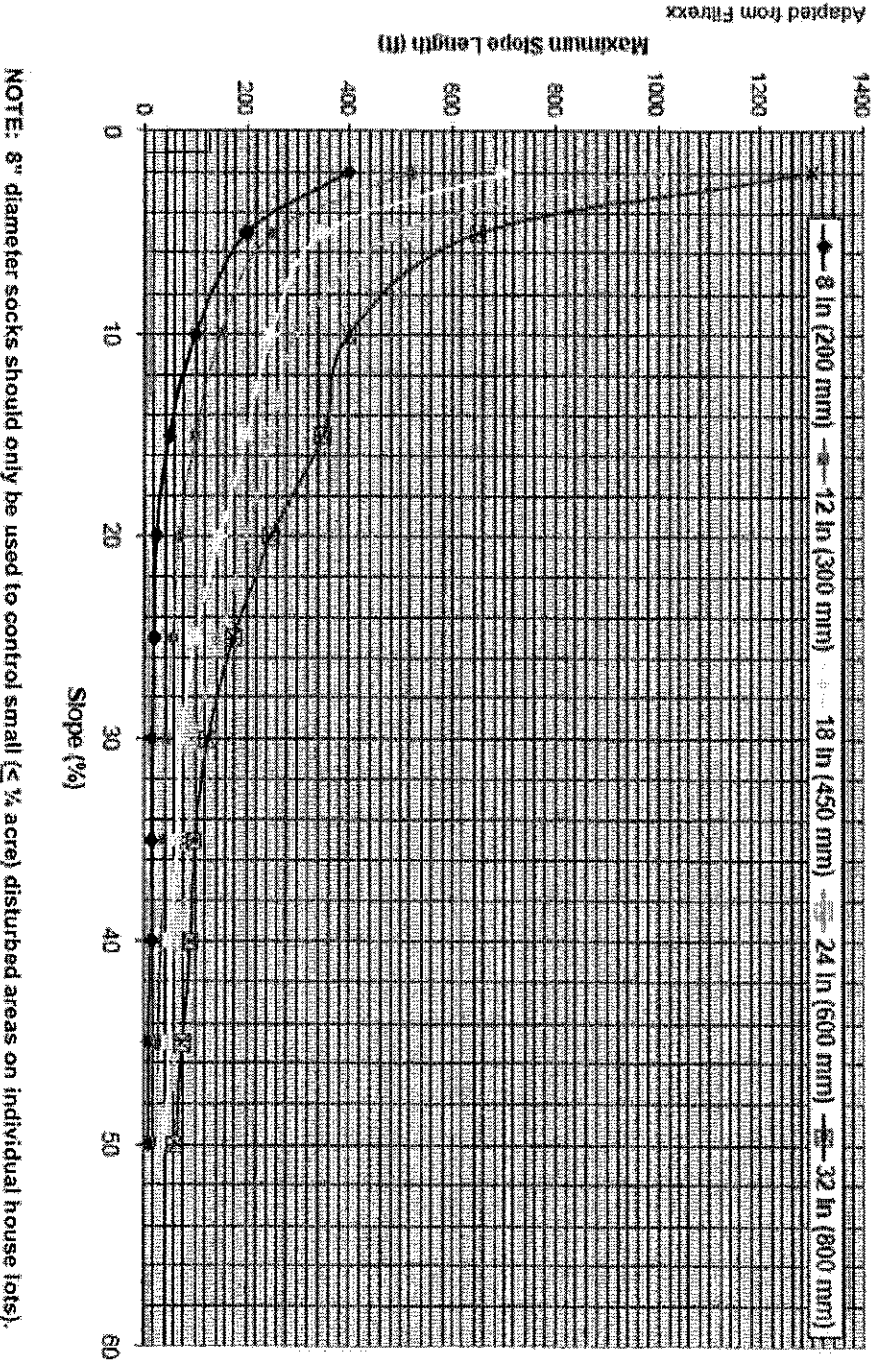
FIGURE 4.2
MAXIMUM PERMISSIBLE SLOPE LENGTH ABOVE COMPOST FILTER SOCKS



NOTE: 8" diameter socks should only be used to control small ($\leq \frac{1}{4}$ acre) disturbed areas on individual house lots).

SILT SOCK #12

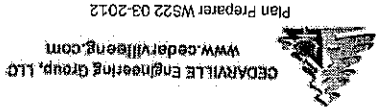
FIGURE 4.2
MAXIMUM PERMISSIBLE SLOPE LENGTH ABOVE COMPOST FILTER SOCKS



NOTE: 8" diameter socks should only be used to control small ($\leq \frac{1}{4}$ acre) disturbed areas on individual house lots).

APPENDIX D

PLAN PREPARER'S EXPERIENCE



STANDARD E&S WORKSHEETS #22
PLAN PREPARER RECORD OF TRAINING AND EXPERIENCE IN EROSION AND
SEDIMENT POLLUTION CONTROL METHODS AND TECHNIQUES

NAME OF PLAN PREPARER:

Robert E. Flinchbaugh, PE

FORMAL EDUCATION:

Name of College or Technical Institute:

University of Pittsburgh @ Johnstown

Curriculum or Program:

Civil Engineering Technology

Dates of Attendance:

From:

Sep-83

To:

Apr-87

Degree Received:

Bachelor of Science

OTHER TRAINING:

Name of Training:

Advanced Stormwater Management

Presented By:

Rutgers University

Date:

Oct-2018

EMPLOYMENT HISTORY:

Current Employer:

Cedarville Engineering Group, LLC

Telephone:

610-705-4500

Former Employer:

Nave Newell, Inc.

Telephone:

610-265-8323

RECENT E&S PLANS PREPARED:

Name of Project:

Arbour Square @
Plymouth Meeting

County:

Montgomery

Municipality:

Plymouth Twp.

Permit Number:

Tredyffrin Twp.

Approving Agency:

PADEP

DCCD

PADEP

Philadelpia	Philadelpia	Philadelpia
Allegheny Avenue	Rafferty Subaru	Pep Boys -
Delaware	Newtown Twp.	
Chester		
Brightview Wayne		
Montgomery		
Plymouth Twp.		
Tredyffrin Twp.		
PADEP		
DCCD		
PADEP		

3. Submittals